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**FINAL
PRELIMINARY ASSESSMENT/INTEGRATED ASSESSMENT REPORT
YURGIN MOTORS
MANTUA TOWNSHIP, GLOUCESTER COUNTY, NEW JERSEY**

CERCLIS ID No.: NJD982790966

EPA Contract No.: 68-W5-0019
TDD No.: 02-96-08-0002
Document Control No.: START-02-F-00748

SEPTEMBER 1997

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by:
**Region II Superfund Technical Assessment And Response Team
Roy F. Weston, Inc.
Federal Programs Division
Edison, New Jersey 08837**

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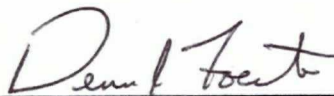
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SUBMITTED BY:



Dennis J. Foerter, CHMM
START Project Manager

Date 9/24/97



W. Scott Butterfield, CHMM
Site Assessment Team Leader

Date 9/24/97

SITE SUMMARY

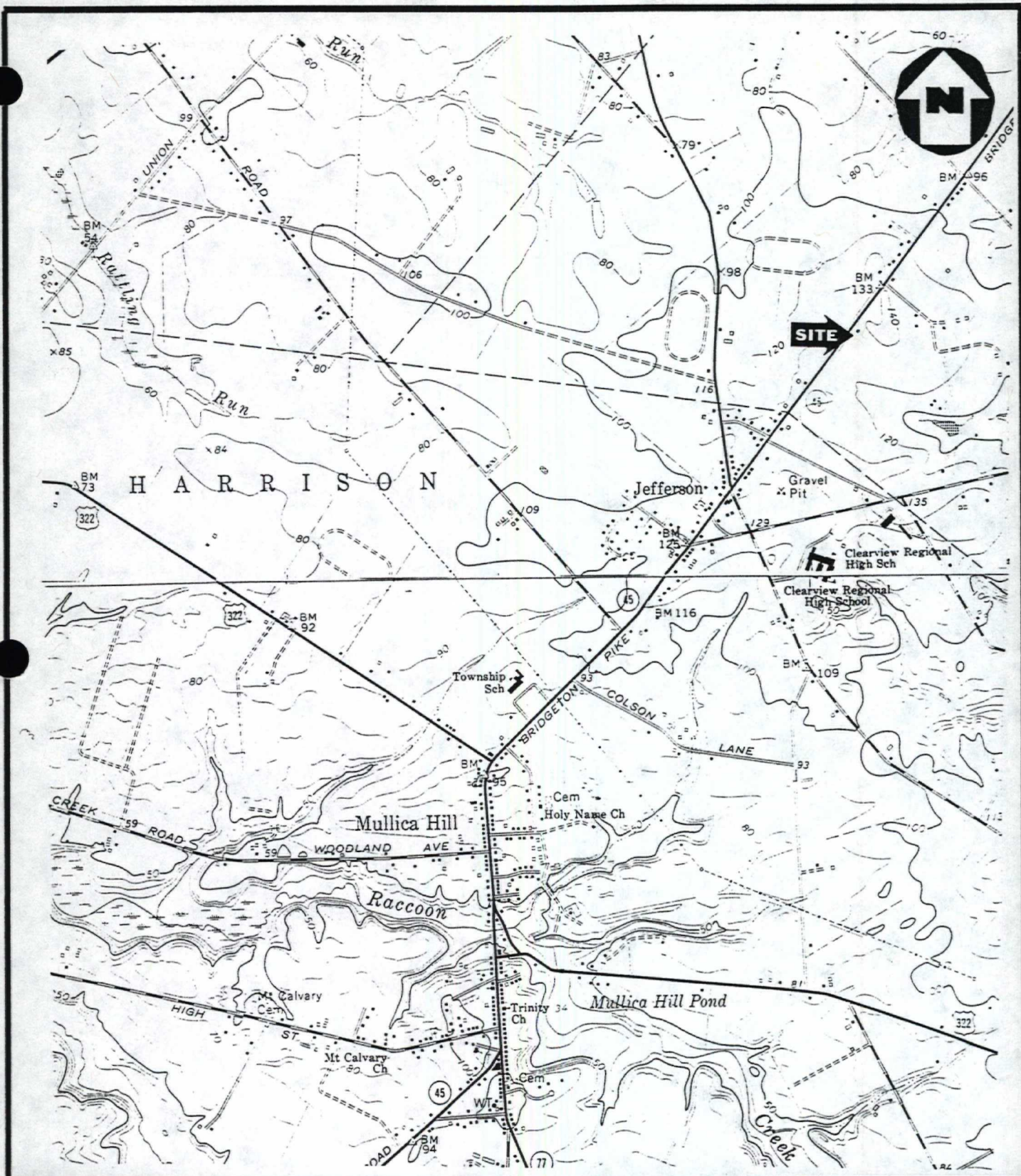
The Yurgin Motors site (CERCLIS ID No. NJD982790966) is an inactive, former automotive repair facility located on Route 45 (Bridgeton Pike) in Mantua Township, Gloucester County, New Jersey (Ref. Nos. 1; 2, pp. 1, 2; 5). The site is located in a rural area which consists of a mix of small farms, private residences, and light commercial properties. The property consists of one office/shop building, one collapsed storage building, several office trailers, and eight box trailers. The site is approximately 26.15 acres in size and is bordered to the west by Route 45, to the north and south by wooded lots, and to the east by an open lot (Ref. Nos. 2, p. 3; 3; 5). Conversations with representatives of Mantua Township indicate that the property is zoned for planned commercial (PC) use and agricultural/residential (AR) use. Figures 1 and 2 present a Site Location Map and Site Map, respectively (Ref. No. 21).

Tax records indicate ownership of the property dating back to 1925 (Ref. No. 3). It is reported that the property was owned and operated as a farm prior to 1965 (Ref. No. 18). The property was purchased in 1965 by Mr. Ludwig Yurgin, who operated an automotive repair facility and auto recycling yard on site. Tax records indicate that Mr. Yurgin is the current owner of the site. Mr. Yurgin is deceased; his son, Peter Yurgin, is Executor of the Estate. A title search, conducted by TRC Environmental Corporation, indicates that FUNB of West Palm Beach, Florida, is currently the custodian for National Tax Funding, and that the purchaser of the tax sale certificate has not yet foreclosed on the property (Ref. No. 3).

On 28 March 1996, The Gloucester County Sheriff's Department notified the New Jersey Department of Environmental Protection (NJDEP) of leaking drums being present on the Yurgin Motors site. The NJDEP - Bureau of Emergency Response subsequently inspected the site along with the Gloucester County Health and Sheriff's Departments. The presence of leaking drums was confirmed during this response (Ref. No. 2, p. 5).

On 24 April 1996, the NJDEP issued a Field Directive to Peter Yurgin for the removal of the abandoned materials on site. Mr. Yurgin informed the NJDEP that the Estate of Ludwig Yurgin did not have the resources to comply with this Field Directive. In addition, neither the NJDEP nor the local government agencies had the resources to conduct removal activities at the site. On 20 May 1996, the site was formally referred to the United States Environmental Protection Agency (EPA) (Ref. No. 2, p. 5).

A preliminary site assessment was conducted by EPA personnel on 30 May 1996. Additional preliminary site assessments were conducted by EPA and Region II Superfund Technical Assessment and Response Team (START) personnel on 14 August, and 5 September 1996 (Ref. No. 2, p. 5; 15). During these assessments, it was noted that drums, compressed gas cylinders, and several hundred small containers were abandoned on site. Many of these containers were in a deteriorated condition, with many leaking their contents to the ground surface. Staining of soil was evident in the areas adjacent to leaking drums. Buildings on site were noted to be in extremely poor condition. Although there is a fence along the west border of the site, the site is



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PRC ENVIRONMENTAL MANAGEMENT, AND GRB ENVIRONMENTAL SERVICES, INC.

EPA PM

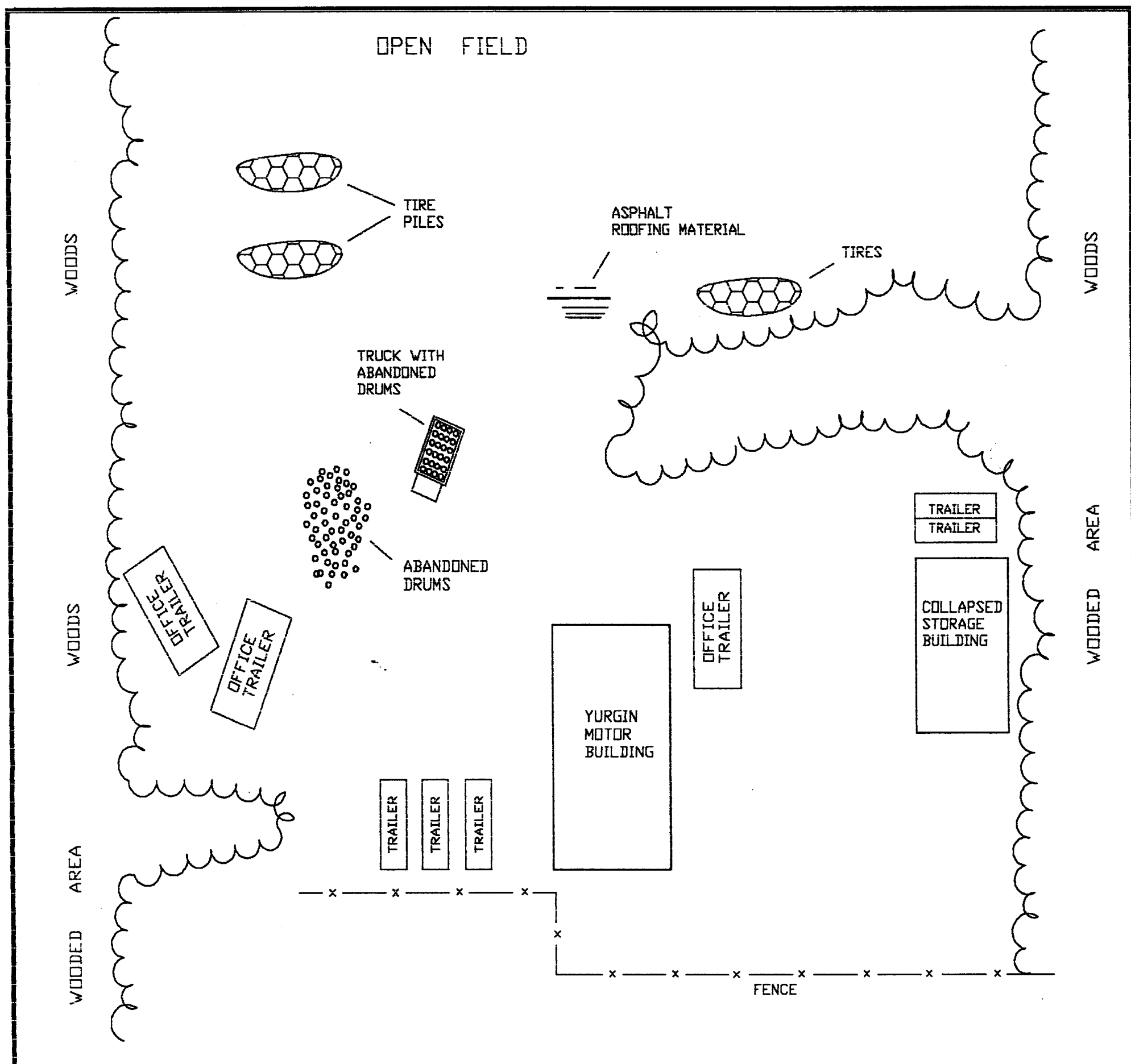
A. Brochu

START PM

D. Foerter

Figure 1
Site Location
Map

Yurgin Motors



ROUTE 45

(BRIDGETON PIKE)

- DRAWING NOT TO SCALE -

Note: Site conditions as of 30 September 1996; prior to the U.S. EPA Removal Action.

FIGURE 1 - SITE MAP
YURGIN MOTORS
MANTUA TWP., NEW JERSEY
JANUARY 1997

REGION II
SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
CONTRACT# 66-W5-0019

DRAWN BY: J. HAMPTON JR.

EPA PROJECT MANAGER: N. NORRELL/A. BROCHU

START PROJECT MANAGER: D. FOERTER



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accessible from other sides, primarily the northwest corner of the site. In addition, there was evidence of vandalism and public entry. Hazard Categorization (HAZCAT) activities conducted by Region II START indicated that the contents in on-site drums and containers exhibited characteristics of ignitability and corrosivity as defined by the Resource Conservation and Recovery Act (RCRA) (Ref. Nos. 2, p. 4; 15). In addition, materials in several on-site containers were determined to be chlorinated organic compounds (Ref. Nos. 15; 18). Subsequent to these preliminary assessments, an Action Memorandum, requesting a Removal Action at the Yurgin Motors site, was prepared by EPA. This Action Memorandum was approved by the EPA Regional Administrator on 13 September 1996 (Ref. No. 2, p. 10).

On 30 September 1996, EPA, Region II START, and the Emergency Response Cleanup Services (ERCS) contractor (OHM Remediation Services Corporation) mobilized to the Yurgin Motors site to initiate removal action activities. During the Removal Action, a total of 166 drums, 2,520 small containers (1 gallon or less), 205 five-gallon buckets, and 19 gas cylinders were identified on site. In addition, visibly contaminated soil (approximately 5,000 square feet) was observed in the area of the drums (Ref. No. 18). A detailed description of these waste sources is presented in Part II (Waste Source Information) of this report. Two 1,000-gallon gasoline underground storage tanks (USTs) were also identified on site. Due to the fact that these tanks contained petroleum products, these USTs will not be evaluated as waste sources in this report.

Analytical results from drum sampling activities conducted during the EPA Removal Action indicated the presence of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs) (Ref. Nos. 4; 19). PCBs were also detected in soil samples collected in the area of the drums located in the northern section of the property (Ref. No. 20). A detailed description of sampling activities is presented in Part III (Analytical Results) of this report.

During the EPA Removal Action, the small containers, 5-gallon buckets, gas cylinders and drums were removed from the site to permitted facilities. In addition, the contents of the gasoline USTs were pumped and removed from the site. These tanks still remain in place. Contaminated soil was excavated from the former drum storage area until post-excavation samples indicated PCB levels below 10 parts per million (ppm). Contaminated soil was excavated from 16 grids; 1 foot of soil was removed from 13 of the grids and 2.5 to 3 feet were removed from the remaining three grids. This activity resulted in the removal of approximately 345 cubic yards of PCB-contaminated soil from the site to permitted facilities. Residual PCB-contaminated soil (less than 10 ppm) may still exist in this area. Subsequent to the removal of PCB-contaminated soil from the former drum storage area, all excavated areas were returned to grade with 1 to 3 feet of clean fill. EPA and removal contractor personnel demobilized from the site on 7 February 1997 (Ref. No. 18).

SITE ASSESSMENT REPORT: PRELIMINARY/INTEGRATED ASSESSMENT**PART I: SITE INFORMATION**

1. Site Name/Alias Yurgin Motors
Street RD 2 Route 45 (945 Bridgeton Pike)
City Mantua Township State NJ Zip 08051
2. County Gloucester County Code 015 Cong. Dist. Unknown
3. CERCLIS ID NO. NJD982790966
4. Block No. Block 273 Lot No. 24
5. Latitude 39° 45' 35" N Longitude 75° 12' 18" W
USGS Quad(s). Woodbury, NJ
6. Approximate size of site 26.15 acres
7. Owner Mr. Ludwig Yurgin (deceased) Telephone No. Not Applicable
Street P.O. Box 163
City Mullica Hill State New Jersey Zip 08062
8. Operator Yurgin Motors (inactive) Telephone No. N/A
Street N/A
City N/A State N/A Zip N/A
9. Type of Ownership
☒ Private ☐ Federal ☐ State
☐ County ☐ Municipal ☐ Unknown ☐ Other

10. Owner/Operator Notification on File

☐ RCRA 3001 ☐ Date ☐ CERCLA 103c Date _____
☒ None ☐ Unknown

11. Permit Information

Permit	Permit No.	Date Issued	Expiration Date	Comments
None	---	---	---	---

12. Site Status

☐ Active ☒ Inactive ☐ Unknown

13. Years of Operation: 1965 to 1989

14. Identify the types of waste sources (e.g., landfill, surface impoundment, piles, stained soil, above- or below-ground tanks or containers, land treatment, etc.) on site. Initiate as many waste unit numbers as needed to identify all waste sources on site.

(a) Waste Sources

Waste Unit No.	Waste Source Type	Facility Name for Unit
1	<u>Drums</u>	<u>Drums</u>
2	<u>Contaminated Soil</u>	<u>Contaminated Soil</u>
3	<u>Non-drum containers</u>	<u>Non-drum containers</u>

(b) Other Areas of Concern

Two 1,000-gallon gasoline underground storage tanks (USTs) are located in the western portion of the site along Route 45. The contents of these tanks were removed during the EPA Removal Action; however, these tanks still remain in place (Ref. No. 18).

15. Describe the regulatory history of the site, including the scope and objectives of any previous response actions, investigations and litigation by State, Local and Federal agencies (indicate type, affiliation, date of investigations).

On 28 March 1996, The Gloucester County Sheriff's Department notified the New Jersey Department of Environmental Protection (NJDEP) of leaking drums being present on the Yurgin Motors site. The NJDEP- Bureau of Emergency Response subsequently inspected the site along with the Gloucester County Health and Sheriff's Departments. The presence

of leaking drums was confirmed during this response (Ref. No. 2, p. 5).

On 24 April 1996, the NJDEP issued a Field Directive to Mr. Peter Yurgin for the removal of the abandoned materials on site. Mr. Yurgin informed the NJDEP that the Estate of Ludwig Yurgin did not have the resources to comply with this Field Directive. In addition, neither the NJDEP nor the local government agencies had the resources to conduct removal activities at the site. On 20 May 1996, the site was formally referred to the United States Environmental Protection Agency (EPA). EPA conducted a removal action at the site from 30 September 1996 to 7 February 1997 (Ref. Nos. 2, p. 5; 18).

- a) Is the site or any waste source subject to Petroleum Exclusion? Identify petroleum products and by products that justify this decision.

Two 1,000-gallon gasoline underground storage tanks (USTs) are located in the western portion of the site along Route 45. The contents of these tanks were removed during the EPA Removal Action. Due to the fact that these tanks contained petroleum products, these USTs will not be evaluated as waste sources in this report (Ref. No. 18).

- b) Has normal farming application of pesticides registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) occurred at the site? Have pesticides been produced or stored at the site? Have there been any leaks or spills of pesticides on site?

The site has not been used for agricultural purposes while in operation as an automotive repair facility; therefore, normal farming application of pesticides registered under FIFRA has not occurred at the site while the automotive repair facility was in operation. However, pesticides applications may have taken place when farm operations occurred on site prior to 1965. Background information does not indicate if pesticides have not been produced or stored on site, nor have there been any reported leaks or spills of pesticides (Ref. Nos. 2, p. 2; 3; 18).

- c) Is the site or any waste source subject to RCRA Subtitle C (briefly explain)?

Based on available background information, neither the site nor any on-site waste sources are subject to RCRA Subtitle C.

- d) Is the site or any waste source maintained under the authority of the Nuclear Regulatory Commission (NRC)?

Neither the site nor any waste sources on site are maintained under authority of the Nuclear Regulatory Commission. None of the on-site waste sources exhibited radiation levels above background during a preliminary site assessment conducted on 5 September 1996 (Ref. No. 15).

16. Do any conditions exist on site which would warrant immediate or emergency action?

Not Applicable. An EPA Removal Action was conducted at the site from 30 September 1996 to 7 February 1997 (Ref. No. 18).

17. Information available from

Contact Amy Brochu Agency U.S. EPA Telephone No.: (908) 906-6802
Preparer Dennis Foerter Agency Region II START Date: 9/3/97

PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following items.

Waste Unit 1 - Drums

Source Type

<u> </u> Landfill	<u> </u> Contaminated Soil
<u> </u> Surface Impoundment	<u> </u> Pile
<u> X </u> Drums	<u> </u> Land Treatment
<u> </u> Tanks/Containers	<u> </u> Other

Description:

During the EPA Removal Action, a total of 166 drums were identified on site. Most of the drums were located on a sandy area in the northern section of the property. Additional drums were located along the property's southern border. Many of these drums were noted to be in a deteriorated condition with several drums leaking their contents to the ground surface. Labels on drums indicated that drums contained waste oils and solvents. No containment features are associated with the abandoned drums.

Ref. Nos. 2, pp. 2, 3; 15; 18

Hazardous Waste Quantity

A total of 166 drums were identified during the EPA Removal Action. These drums were removed from the site to permitted facilities as part of the EPA Removal Action. The quantity of the drums will not be evaluated in this report, as previous removal activities meet the criteria for a qualifying removal under CERCLA.

Ref. No. 18

Hazardous Substances/Physical State

Analytical results from samples collected during the EPA Removal Action indicate the presence of the following: volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs). Drum contents were identified to be in a liquid and sludge state.

Ref. Nos. 4; 19

PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following items.

Waste Unit 2 - Contaminated Soil

Source Type

<u> </u> Landfill	<u> X </u> Contaminated Soil
<u> </u> Surface Impoundment	<u> </u> Pile
<u> </u> Drums	<u> </u> Land Treatment
<u> </u> Tanks/Containers	<u> </u> Other

Description:

During the EPA Removal Action, approximately 5,000 square feet (100 feet long by 50 feet wide) of stained soil was observed in the area of the abandoned drums in the northern section of the site. Analytical results from surface soil samples collected from this area indicated the presence of PCBs.

Ref. Nos. 2, p. 6; 4; 18; 20

Hazardous Waste Quantity

Approximately 345 cubic yards of PCB-contaminated soil were removed from the site to permitted facilities during the EPA Removal Action. This quantity will not be evaluated in this report, as these activities meet the criteria of a qualifying removal under CERCLA. Residual PCB-contaminated soil (less than 10 ppm) may still exist in this area. Therefore, a quantity of 5,000 square feet (100 feet long by 50 feet wide) of contaminated soil (less than 10 ppm) will be evaluated for the purposes of this report.

Ref. Nos. 4; 18; 20

Hazardous Substances/Physical State

Analytical results from soil samples collected from the stained soil during the EPA Removal Action indicate the presence of PCBs. PCB-containing liquids and sludges were stored in abandoned drums on site (Ref. Nos. 4; 18).

PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following items.

Waste Unit 3 - Non-Drum Containers

Source Type

<u> </u> Landfill	<u> </u> Contaminated Soil
<u> </u> Surface Impoundment	<u> </u> Pile
<u> </u> Drums	<u> </u> Land Treatment
<u> X </u> Tanks/Containers	<u> </u> Other

Description:

During the EPA Removal Action, a total of 2,520 small containers (1-gallon capacity or less) and 205 five-gallon buckets were identified on site. Contents within these containers included rubber-based adhesives, primer compounds, and paint thinners. Small containers and buckets were stored in on-site trailers and buildings. In addition, 19 empty gas cylinders were identified in various areas of the site. These cylinders had contained acetylene and propane gas.

Ref. Nos. 18

Hazardous Waste Quantity

A total of 2,520 small containers (1-gallon capacity or less), 205 five-gallon buckets, and 19 gas cylinders were identified on site during the EPA Removal Action. The small containers, 5-gallon buckets, and gas cylinders have been removed from the site to permitted facilities as part of the EPA Removal Action. The quantity of the small containers will not be evaluated in this report, as previous removal activities meet the criteria for a qualifying removal under CERCLA.

Ref. No. 18

Hazardous Substances/Physical State

Contents within the small containers and 5-gallon buckets were stored as liquids. Acetylene was stored in cylinders in a gaseous state (Ref. No. 18).

PART III. SAMPLING RESULTS

EXISTING ANALYTICAL DATA

Available background information did not indicate any sampling activities having taken place prior to the site being referred to EPA on 20 May 1996.

PRELIMINARY ASSESSMENT/INTEGRATED ASSESSMENT SAMPLING RESULTS

EPA Removal Sampling

During the 5 September 1996 Preliminary Site Assessment conducted by Region II START, a total of nine samples were collected from on-site drums and small containers. These samples were field screened for RCRA characteristics utilizing the Hazard Categorization Chemical Identification System. Results from the field screening indicated the presence of flammable liquids and flammable chlorinated liquids, flammable solids/sludges, and corrosive liquids (Ref. No. 15).

Various sampling activities were conducted during the EPA Removal Action conducted on site. On 31 October 1996 and 1 November 1996, the ERCS contractor (OHM Remedial Services Corp.[OHM]) collected four liquid samples, three sludge samples, and one solid sample from the various bulking groups of containers on site. Samples were collected as composites within their respective bulking group. Samples were analyzed by Accredited Laboratories, Inc. for some or all of the following parameters: Full Toxicity Characteristic Leaching Procedure (TCLP), reactivity, flash point, pH, Target Compound List (TCL) VOCs, SVOCs, pesticides/PCBs, and herbicides, total solids, percent ash, BTU content, total halides, total sulfur, total cyanide, Target Analyte List (TAL) metals, total phenols, total organic halogens, and paint filter test. All samples were analyzed utilizing EPA methods. Analytical data generated from these samples indicated the presence of the following:

TCL Volatile Organic Compounds

1,1,1-trichloroethane	toluene	ethylbenzene
m,p-xylene	o-xylene	methylene chloride
acetone	1,1-dichloroethane	trichloroethene
benzene	4-methyl-2-pentanone	chlorobenzene
tetrachloroethene	styrene	

TCL Semivolatile Organic Compounds

acenaphthene	bis(2-ethylhexyl) phthalate	2-methylnaphthalene
naphthalene	phenanthrene	pyrene
1,2,4-trichlorobenzene	fluorene	dibenzofuran
1,4-dichlorobenzene	butylbenzylphthalate	phenol

PCBs (aroclor-1260) were also detected in several samples collected. Analyses from samples collected for TCLP analyses did not reveal the presence of any contaminants above regulatory levels (Ref. No. 4).

On 13 November 1996, OHM collected drum samples from 118 drums on site. These drums were analyzed by Accredited Laboratories for PCBs. PCB concentrations ranged from non-detect to 103,000 milligrams per kilogram (mg/kg), with concentrations of PCBs being detected in 92 of the 118 drums sampled (Ref. No. 19).

Once the drums were stabilized and restaged on site, OHM removed visibly contaminated soil (approximately 5,000 square feet) in the area of these drums in the northern section of the property. On 5 December 1996, OHM collected 16 composite post-excavation soil samples from this area. PCBs were detected in all 16 samples at concentrations ranging from 311 micrograms per kilogram (ug/kg) to 189,000 ug/kg (Ref. No. 20). OHM continued to remove PCB-contaminated soil until PCB levels were below 10 ppm. Contaminated soil was excavated from 16 grids; 1 foot of soil was removed from 13 of the grids and 2.5 to 3 feet were removed from the remaining three grids. Subsequent to the removal of PCB-contaminated soil from the former drum storage area, all excavated areas were returned to grade with 1 to 3 feet of clean fill (Ref. No. 18).

Site Assessment Sampling

Based on a review of available background information and data generated during the EPA Removal Action, and data and target information applicable to evaluating the site under the Hazard Ranking System (HRS), it was determined that further sampling was not necessary to characterize the site.

PART IV. HAZARD ASSESSMENT

GROUNDWATER ROUTE

1. Describe the likelihood of a release of contaminant(s) to the groundwater as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release, define the supporting analytical evidence and relationship to background.

No observed release of contaminants to groundwater is documented. No hydrogeologic investigations are known to have occurred at the site. Drums on site were observed to have leaked their contents to the ground surface; stained soil was observed in the area of these drums. Analytical results from drum and surface soil samples collected during the EPA Removal Action indicated the presence of PCBs. Based on evaluation of these conditions, a release of contaminants to the water table aquifer is suspected (Ref. Nos. 2, p. 2; 4; 18; 19).

2. Describe the aquifer of concern; include information such as depth, thickness, geologic composition, areas of karst terrain, permeability, overlying strata, confining layers, interconnections, discontinuities, depth to water table, groundwater flow direction.

Based on stratigraphic information and well logs available from published sources, the following stratigraphic sequence exists in the area of the Yurgin Motors site:

<u>Geologic Unit</u>	<u>Depth (feet below ground surface)</u>
Composite Confining Bed	0-110'
Wenonah-Mt. Laurel Aquifer	110-190'
Marshalltown-Wenonah Confining Bed	190-216'
Englishtown Aquifer System	216-238'
Merchantville-Woodbury Confining Bed	238-360'
Potomac-Raritan-Magothy Aquifer System	360-Bedrock

Based on an evaluation of depths to each aquifer, overlying strata, and populations served by each unit, the Wenonah-Mt. Laurel Aquifer will be evaluated as the aquifer of concern for the purposes of this report. The major component of the aquifer are the fine- to coarse-grained, slightly glauconitic quartz sands of the Mt. Laurel Sand. In the area of the site, the Wenonah-Mt. Laurel Aquifer has an approximate thickness of 80 feet and a hydraulic conductivity of 10^{-4} centimeters per second (cm/sec). Most potable residential wells within the site's 4-mile radius are screened within this unit. In the area of the site, groundwater movement within this unit is generally to the southeast.

The Wenonah-Mt. Laurel Aquifer is overlain by the Composite Confining Bed. The Composite Confining Bed consists of a complex series of geologic units which mostly consist of silty and clayey glauconitic quartz sands. In the area of the Yurgin Motors site, the Composite Confining Bed consists of an outcrop of the Vincentown Formation underlain by the Hornerstown Sand and the Navesink Formation, which is the basal unit of the Composite Confining Bed throughout the New Jersey Coastal Plain. In the area of the site, the Composite Confining Bed has an approximate thickness of 110 feet and a hydraulic conductivity of 10^{-4} cm/sec. Based on a review of topographic maps, and the site's proximity to the nearest surface water body, the depth to the water table is estimated to be 30 feet below ground surface. Groundwater flows to the east-southeast. Due to its reported poor water quality, the Composite Confining Bed is not used as a private potable source in the area of the Yurgin Motors site.

The aquifer of concern is underlain by the Marshalltown-Wenonah Confining Bed, which consists of the glauconitic silts and sands of the Marshalltown Formation overlain by the dark grey, poorly sorted, micaceous, fine quartz sands of the Wenonah Formation. This unit has an approximate thickness of 26 feet and a hydraulic conductivity of 10^{-4} to 10^{-6} cm/sec.

The Marshalltown-Wenonah Confining Bed is underlain by the Englishtown Aquifer system, which in the area of the site consists of fine-grained sands with local silt and clay beds. The Englishtown Aquifer System has an approximate thickness of 22 feet and a hydraulic conductivity of 10^{-4} cm/sec. This unit is not a major source of water in the area of the Yurgin Motors site.

The Englishtown Aquifer is underlain by the Merchantville-Woodbury Confining Bed, which consists of thin- to thick-bedded sequences of micaceous clays and clayey silts. The Merchantville-Woodbury Confining Bed is the most extensive confining bed in the New Jersey Coastal Plain. It also acts as an effective confining layer between the overlying Englishtown Aquifer and the upper aquifer of the Potomac-Raritan-Magothy (PRM) aquifer system. The Merchantville-Woodbury Confining Bed has an approximate thickness of 122 feet and a hydraulic conductivity of 10^{-8} cm/sec.

The Merchantville-Woodbury Confining Bed is underlain by the upper aquifer of the PRM aquifer system. The PRM consists of the fine- to course-grained sands of the Magothy and Raritan Formations and the alternating clays, sands, silts, and gravels of the Potomac Group. Most public supply and agricultural wells within the Yurgin Motor's 4-mile radius are screened within the PRM. Groundwater movement within the PRM aquifer system is to the southeast.

Ref. Nos. 6; 7

- 3. What is the depth from the lowest point of waste disposal/storage to the highest seasonal level of the saturated zone of the aquifer of concern?**

PCB-contaminated soil was documented to a depth of 2.5 to 3 feet below ground surface. The highest seasonal level of the saturated zone of the aquifer of concern is approximately 110 feet. Therefore, the depth from the lowest point of waste disposal storage to the highest seasonal level of the aquifer of concern is approximately 107 feet (Ref. Nos. 6; 18).

- 4. What is the permeability value of the least permeable continuous intervening stratum between the ground surface and the top of the aquifer of concern?**

The least permeable intervening stratum between the ground surface and the aquifer of concern is the Composite Confining Bed, which has an approximate hydraulic conductivity of 10^{-4} cm/sec (Ref. Nos. 6; 8).

- 5. What is the net precipitation at the site (inches)?**

The net precipitation at the site is between 15 and 30 inches (Ref. No. 8).

- 6. What is the distance to and depth of the nearest well that is currently used for drinking purposes?**

The nearest wells currently used for drinking are located approximately 0.1 mile to the east and west of the site. Both of these private wells are over 400 feet deep and screened in the Potomac-Raritan-Magothy formations (i.e., not in the aquifer of concern) (Ref. No. 7).

- 7. If a release to groundwater is observed or suspected, determine the number of people that obtain drinking water from wells that are documented or suspected to be actually contaminated by hazardous substance(s) attributed to an observed release from the site.**

Although a release to the water table (i.e., Composite Confining Bed) is suspected, no wells are expected to be actually contaminated from contaminants attributable to the site. The Composite Confining Bed is not used for potable purposes in the area of the site. The nearest downgradient well used for drinking is located approximately 0.1 mile east of the site. This well is over 400 feet deep, screened in the PRM aquifer (i.e., not the aquifer of concern), and is overlain by a 122-foot-thick confining layer (Ref. Nos. 5; 6).

8. Identify the population served by wells located within 4 miles of the site that draw from the aquifer of concern.

<u>Distance</u>	<u>Population</u>	
	<u>Mt. Laurel-Wenonah*</u>	<u>Potomac Raritan Magothy (PRM)</u>
0 - ¼ mile	30	6
> ¼ - ½ mile	117	0
> ½ - 1 mile	395	600
> 1 - 2 miles	1,140	4,728
> 2 - 3 miles	4,951	6,339
> 3 - 4 miles	3,278	18,259

Ref. No. 7 * - Aquifer of Concern

State whether groundwater is blended with surface water, groundwater, or both before distribution.

Mantua Township, Harrison Township, East Greenwich Township, West Deptford, Woodbury, and Wenonah have public supply wells screened within the site's 4-mile radius. All of these systems blend water from there respective wells prior to distribution. Three public supply wells owned by Mantua Township are screened in the aquifer of concern (i.e., Wenonah-Mt. Laurel aquifer). Most public supply wells within the site's 4-mile radius are screened in the Potomac-Raritan-Magothy formations. Areas within the site's 4-mile radius, which are not served by public supply wells, obtain drinking water through private wells. Most private wells in the area of the site are screened in the Wenonah-Mt. Laurel aquifer (Ref. No. 7).

Is a designated wellhead protection area within 4 miles of the site?

Wellhead protection areas have not been delineated in New Jersey (Ref. No. 9).

Does a waste source overlie a designated or proposed wellhead protection area? If a release to groundwater is observed or suspected, does a designated or proposed wellhead protection area lie within the contaminant boundary of the release?

Not applicable (Ref. No. 9).

9. **Identify one of the following resource uses of groundwater within 4 miles of the site (i.e., commercial livestock watering, ingredient in commercial food preparation, supply for commercial aquaculture, supply for major, or designated water recreation area, excluding drinking water use, irrigation (5-acre minimum) of commercial food or commercial forage crops, unusable).**

Groundwater within 4 miles of the site is used for drinking and agricultural purposes (Ref. No. 7).

SURFACE WATER ROUTE

- 10. Describe the likelihood of a release of contaminant(s) to surface water as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release, define the supporting analytical evidence and relationship to background.**

There is no observed or suspected release of contaminants to surface water. No surface water or sediment samples were collected from surface water bodies near the site. The nearest perennial surface water is located approximately 0.75 mile east of the site. PCBs were detected in on-site soil during the EPA Removal Action; however, based on the distance of this surface water from waste sources, site topography, mobility of PCBs, and the permeability of the underlying soils, PCBs are not expected to have migrated to surface water (Ref. Nos. 5; 10; 18; 20).

- 11. Identify the nearest down slope surface water. If possible, include a description of possible surface drainage patterns from the site.**

The nearest downslope surface water is an unnamed intermittent tributary to the Edwards Run, located approximately 0.25 mile southeast of the site. This tributary extends east for approximately 0.5 mile into the Edwards Run, which is the probable point of entry (PPE) to surface water and beginning of the in-water segment of the 15-mile surface water pathway. From the PPE, the Edwards Run flows north for approximately 4.2 miles to Mantua Creek, which flows 5.7 miles to the Delaware River, where the in-water segment ends approximately 5.1 miles downstream from the Mantua Creek-Delaware River confluence (Ref. Nos. 10; 15).

- 12. What is the distance in feet to the nearest downslope surface water? Measure the distance along a course that runoff can be expected to follow.**

The nearest downslope surface water is an unnamed intermittent tributary to the Edwards Run, located approximately 0.25 mile southeast of the site. This tributary extends east for approximately 0.5 mile prior to entering the Edwards Run (Ref. Nos. 10; 15).

- 13. Identify all surface water body types within 15 downstream miles.**

<u>Name</u>	<u>Water Body Type</u>	<u>Flow (cfs)</u>	<u>Saline/Fresh/Brackish</u>
Edwards Run	Minimal stream	< 10	Fresh
Mantua Creek	Tidal Stream	76	Brackish
Delaware River	Tidal River	17,000	Brackish

Ref. Nos. 8; 10; 11

14. Determine the 2 yr, 24 hr rainfall (inches) for the site.

The 2-year, 24 hour rainfall in the area of the site is between 3.0 and 3.5 inches (Ref. No. 12).

15. Determine size of the drainage area (acres) for sources at the site.

The drainage area for sources at the site is estimated to be less than 5 acres (Ref. No. 12).

16. Describe the predominant soil group in the drainage area.

The predominant soil group in the drainage area consists of a loamy sand (Ref. Nos. 8; 13).

17. Determine the type of floodplain that the site is located within.

The site is located in an area of minimal flooding (i.e. outside the 500-year flood boundary) (Ref. No. 14).

18. Identify drinking water intakes in surface waters within 15 miles downstream of the point of surface water entry. For each intake identify: the name of the surface water body in which the intake is located, the distance in miles from the point of surface water entry, population served, and stream flow at the intake location.

<u>Intake</u>	<u>Distance</u>	<u>Population Served</u>	<u>Flow (cfs)</u>
None	N/A	N/A	N/A

Ref. Nos. 10; 11

19. Identify fisheries that exist within 15 miles downstream of the point of surface water entry. For each fishery specify the following information:

<u>Fishery Name</u>	<u>Water Body Type</u>	<u>Flow (cfs)</u>	<u>Saline/Fresh/Brackish</u>
Edwards Run	Minimal stream	< 10	Fresh
Mantua Creek	Tidal Stream	76	Brackish
Delaware River	Tidal River	17,000	Brackish

Ref. Nos. 8; 10; 11

20. Identify surface water sensitive environments that exist within 15 miles of the point of surface water entry.

<u>Environment</u>	<u>Water Body Type</u>	<u>Flow (cfs)</u>	<u>Wetland Frontage</u>
Edwards Run	Minimal Stream	< 10	8.3 miles
Mantua Creek	Tidal Stream	76	6 miles
Delaware River	Tidal River	17,000	2 miles
Federal-listed Threatened Species Habitat	Unknown	N/A	N/A

Ref. Nos. 8; 10; 11

21. If a release to surface water is observed or suspected, identify any intakes, fisheries, and sensitive environments from question Nos. 18-20 that are or may be actually contaminated by hazardous substance(s) attributed to an observed release of from the site.

Intake: N/A

Fishery: N/A

Sensitive Environment: N/A

Ref. Nos. 5; 10; 18; 20

22. Identify whether the surface water is used for any of the following purposes, such as: irrigation (5 acre minimum) of commercial food or commercial forage crops, watering of commercial livestock, commercial food preparation, recreation, potential drinking water supply.

Surface water within 15 miles downstream is used for irrigation of commercial food (i.e., agricultural), and primary and secondary contact recreation (Ref. No. 11).

SOIL EXPOSURE PATHWAY

23. Determine the number of people that occupy residences or attend school or day care on or within 200 feet of observed contamination.

One residence is located approximately 150 feet to the east of the site; however this residence is greater than 200 feet from areas of observed contamination on site. There are no schools or day care centers within 200 feet of the site (Ref. No. 15).

- 24. Determine the number of people that regularly work on or within 200 feet of observed contamination.**

The site is currently inactive; therefore, there are no workers on or within 200 feet of observed contamination (Ref. No. 2, p. 1; 18).

- 25. Identify terrestrial sensitive environments on or within 200 feet of observed contamination.**

There are no terrestrial sensitive environments within 200 feet of observed contamination (Ref. No. 16).

- 26. Identify whether there are any of the following resource uses, such as commercial agriculture, silviculture, livestock production or grazing within an area of observed or suspected soil contamination.**

Soil is not used as a resource in an area of soil contamination on site (Ref. Nos. 15; 18).

AIR PATHWAY

- 27. Describe the likelihood of release of hazardous substances to air as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them the site. For observed release, define the supporting analytical evidence and relationship to background.**

A release of contaminants to the air is not observed or suspected. There are no known analytical data available to determine if a release from the site to the air has occurred. No readings above background were detected in the breathing zone on the Organic Vapor Analyzer (OVA) flame ionization detector and the Hnu photoionization detector during the preliminary site assessment conducted on 5 September 1996 (Ref. Nos. 2; 15)

- 28. Determine populations that reside within 4 miles of the site.**

<u>Distance</u>	<u>Population</u>
On site	0
> 0 - ¼ mi	36
> ¼ - ½ mi	139
> ½ - 1 mi	822
> 1 - 2 mi	4,338
> 2 - 3 mi	8,729
> 3 - 4 mi	15,846

Ref. No. 17

29. Identify sensitive environments, including wetlands and associated wetlands acreage, within 4 miles of the site.

<u>Distance</u>	<u>Wetlands Acreage</u>	<u>Sensitive Environments</u>
0 - ¼ mi	1	None Identified
> ¼ - ½ mi	16	None Identified
> ½ - 1 mi	78	None Identified
> 1 - 2 mi	330	None Identified
> 2 - 3 mi	518	None Identified
> 3 - 4 mi	772	State-listed endangered species Habitats (13) Federal-listed threatened species Habitat (1)

Ref. Nos. 10; 16

30. If a release to air is observed or suspected, determine the number of people that reside or are suspected to reside within the area of air contamination from the release.

A release to air is not observed or suspected; see question no. 27 for a description of likelihood of a release.

31. If a release to air is observed or suspected, identify any sensitive environments, listed in question No. 29, that are or may be located within the area of air contamination from the release.

A release to air is not observed or suspected; see question no. 27 for a description of likelihood of a release.

REFERENCES

1. Phone Conversation Record: Conversation between Amy Brochu, U.S. Environmental Protection Agency, and Dennis Foerter, Region II Superfund Technical Assessment and Response Team (START), 7 January 1997.
2. U.S. EPA Action Memorandum from N. Norrell, On-Scene Coordinator, to Jeanne M. Fox, Regional Administrator, Subject: Request for a Removal Action at Yurgin Motors, Mantua, Gloucester County, New Jersey, 13 September 1996.
3. Current Ownership/Chain of Title - Yurgin Motors site (minus attachments), prepared by TRC Environmental Corporation, 6 September 1996.
4. Analytical data from liquid, sludge and solid samples collected by OHM Remediation Corporation on 31 October and 1 November 1996; Analyses conducted by Accredited Laboratory, Inc.
5. Four-Mile Vicinity Map for Yurgin Motors, based on U.S. Department of the Interior, Geological Survey Topographic Maps, 7.5 minute series, Quadrangles for Woodbury, NJ-PA; Bridgeport NJ-PA; Woodstown NJ; and Pitman West, NJ.
6. Zapecza, Otto S. Hydrogeologic Framework of the New Jersey Coastal Plain. U.S. Geological Survey, Open File Report 84-730, 1984.
7. Project Note from D. Foerter, Region II START, to Yurgin Motors File, Subject: Groundwater populations/use - Yurgin Motors, 10 January 1997.
8. Federal Register, Environmental Protection Agency, 40 CFR Part 300, Hazard Ranking System; Final Rule, Volume 55, No. 241, 14 December 1990.
9. Phone Conversation Record: Conversation between Kimberly Cenno, New Jersey Department of Environmental Protection, Bureau of Environmental Planning, and Joann Wagner, Region II START, 18 October 1996.
10. Fifteen-Mile Surface Water Pathway Map for Yurgin Motors, compiled from the following U.S. Department of the Interior, Fish and Wildlife Services, National Wetland Inventory Maps, 7.5 minute series (based on aerial photography), Quadrangles for Woodbury, NJ-PA, 1986 and 1989; Bridgeport, NJ-PA, 1986 and 1989; Woodstown, NJ, 1975; and Pitman West, NJ, 1977.

REFERENCES (CONTINUED)

11. Project Note from D. Foerter, Region II START, to Yurgin Motors File, Subject: Surface Water Pathway - Yurgin Motors, 10 January 1997.
12. Project Note from D. Foerter, Region II START, to Yurgin Motors File, Subject: Two-Year 24-Hour Rainfall/Drainage Area - Yurgin Motors, 10 January 1997.
13. U.S. Department of Agriculture, Soil Conservation Service, Soil Survey for Gloucester County, Series 1959, No. 8, issued June 1962.
14. National Flood Insurance Program, Flood Insurance Rate Map (FIRM), Township of Mantua, Gloucester County, New Jersey, Community Panel No. 34027 0015 B, Panel 15 of 15, 3 November 1982.
15. Field Logbook for Yurgin Motors site, Document Control No. START-02-065, TDD No. 02-96-08-0002. Off-site Reconnaissance (14 August 1996) and Preliminary Site Assessment (5 September 1996) conducted by Region II START. (Sampling Trip Report attached)
16. Project Note from D. Foerter, Region II START, to Yurgin Motors File, Subject: Sensitive Environments - Yurgin Motors, 10 January 1997.
17. Letter from Bob Frost, Frost Associates, to Dennis Foerter, Region II START, 4 October 1996.
18. Project Note from D. Foerter, Region II START, to Yurgin Motors File, Subject: EPA Removal Action Activities - Yurgin Motors, 1 June 1997.
19. Analytical data from drum samples collected by OHM Remediation Corporation on 13 November 1996; Analyses conducted by Accredited Laboratory, Inc.
20. Computation sheet and analytical data from post-excavation soil samples collected by OHM Remediation Corporation on 5 December 1996; Analyses conducted by Accredited Laboratory, Inc.
21. Phone Conversation Record: Conversation between Shirley Veacock, Mantua Township, and Dennis Foerter, Region II START, 21 July 1997.

REFERENCE NO. 1

PHONE CONVERSATION RECORD

Conversation with:

Name Amy Brochu
Company U.S. EPA
Address 2890 Woodbridge Ave
Edison, NJ
Phone (908) 966-6802
Subject CERCLA LUTING - Yurbin Motors

Date 1 / 9 / 97

Time 1400 AM/PM (PM)

☒ Originator Placed Call

☐ Originator Received Call

W.O. NO. 11098-11-002-145

Notes:

Called Amy Brochu with current CERCLA No. for Yurbin
Motors site. She said that the number is

• NJD 982790966

• County Code - 015

D. Frier
1/8/97

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up-Action: _____

Originator's Initials _____

REFERENCE NO. 2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

C. Kelly
(START)

9609-0017

SUBJECT: Request for a Removal Action at Yurgin Motors, Mantua,
Gloucester County, New Jersey - ACTION MEMORANDUM

FROM: Neil J. Norrell, On-Scene Coordinator
Response and Prevention Branch

TO: Jeanne M. Fox
Regional Administrator

THRU: Richard L. Caspe, Director
Emergency and Remedial Response Division

Site ID No.: HM

I. PURPOSE

The purpose of this Action Memorandum is to request funding to conduct a time-critical removal action described herein at the Yurgin Motors Site, RD 2, Route 45, (Block 273, Lot 24) Mantua, Gloucester County, New Jersey.

On May 20, 1996, the U.S. Environmental Protection Agency (EPA) received a written request from the New Jersey Department of Environmental Protection (NJDEP) to perform a removal action at the Yurgin Motors Site, Mantua, NJ, under the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by 42 U.S.C. §9601 et. seq.

The Site consists of an abandoned automotive repair facility located in Mantua, NJ. This action memorandum provides for site security, inventory, sampling, analysis, stabilization, transportation and disposal of all hazardous substances present at the Site.

The Site is not on the National Priorities List (NPL) and there are no nationally significant or precedent-setting issues associated with this Site.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

1. Removal Site Evaluation

The Yurgin Motors Site is located at RD 2, Route 45, Block 273, Lot 24, Mantua, Gloucester County, New Jersey. The Site consists of one office/shop building, one collapsed storage building, several office trailers and eight box trailers. The buildings are of wood frame construction and in extremely poor condition. One building has collapsed. The property is approximately 24 acres in size and located in a rural farm/residential area. Several small businesses are located nearby.

Preliminary assessments of the Site, performed by EPA, determined that approximately 100-150 drums, 12-15 compressed gas cylinders, approximately 500 small containers and 8 box trailers with unknown contents are abandoned at the Site. Hazcatting performed during the preliminary assessment revealed the presence of materials that meet the criteria of hazardous waste for the characteristics of ignitability and corrosivity. In addition, some of these materials were determined to be chlorinated organic compounds. All materials located at the Site are in poor condition and evidence of leakage is visible in several locations.

The buildings and property are not secured, and there is evidence of vandalism and public entry. Several areas of the Site show evidence of fires and a small above ground storage tank located near the office/shop building appears to have been used as a stove. The Gloucester County Sheriffs Department reports that persons using the Site as a temporary residence have been removed on several occasions.

Most of the containers located at the Site are in deteriorated condition and many are leaking. The property is not secure and persons entering the Site could be exposed to these materials through direct contact and/or inhalation. Due to the deteriorated condition of the containers and unknown nature of the contents, it is impossible to predict the potential health threats related to acute or chronic exposure to the materials.

2. Physical Location

The Yurgin Motors Site is located at RD 2, Route 45, Mantua, Gloucester County, New Jersey. The Site consists of one office/shop building, one collapsed storage building, several office trailers and eight box trailers. The Site is situated in a rural area that is a mix of small farms, private residences and light commercial properties. The site is bordered by Route 45 on the west, wooded lots on the north and south and an open lot on the east. The nearest residence is located approximately 150 feet to the west. A small farm and 6 residences are located approximately 250 feet to the north. A small strip mall is located less than 1/4 mile to the south.

3. Site Characteristics

The site buildings are of wood frame construction. The buildings are not secured and there is evidence of vandalism and public entry. All structures are in poor condition and one has collapsed. The buildings are located on the western and southern property lines with a heavily overgrown area between them. There is chain link fencing along the western border of the property only. The Site can be readily accessed from all other directions. All utilities are believed to be disconnected.

There are approximately 150 drums located on a sandy area in the northern section of the property. Additional drums are located along the southern property border. The compressed gas cylinders are located in several areas. The box trailers are located along the western and southern property lines.

Most of the property is overgrown with low vegetation, however, there are wooded areas located along the northern and southern borders and in the center of the property.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

Information regarding materials at the Site is based on field analysis and inventories performed during the preliminary assessment. The following is a partial list of hazardous substances identified at the Site:

<u>Substance Identified</u>	<u>Statutory Source for Designation as a Hazardous Substance</u>
Materials exhibiting the Characteristic of Ignitability	RCRA, Section 3001 (As defined in CFR 40, Part 261.21)
Materials exhibiting the Characteristic of Corrosivity	RCRA, Section 3001 (As defined in CFR 40, Part 261.22)

Other materials identified at the Site include acetylene, oxygen, propane, automotive paints, solvents, thinners, waste oils and degreasing agents.

Due to the presence of flammable liquids, corrosives and oxidizers (oxygen), the threat of fire at the facility does exist. Materials are located in several areas of the property including the structures and box trailers. Should a fire occur, it could spread across the facility and involve many types of materials found at the Site.

The potentially toxic fumes created by the uncontrolled combustion of these materials could impact the surrounding residents, possibly necessitating an evacuation and the closure of county roads.

Runoff from rain or fire fighting efforts would carry material across the property and onto the surrounding fields and woodlands. In addition, runoff could enter a small, unnamed stream located to the east of the property. The stream flows to Edwards Run which enters Mantua Creek, and eventually the Delaware River.

5. NPL Status

At the present time, the Site is not on the NPL and there are no efforts underway to include this Site on the NPL.

B. Other Actions to Date

1. Previous Actions

This Site was referred, in writing, by NJDEP on May 20, 1996. Assessments were performed by EPA on May 30, August 14, and September 5, 1996. No previous EPA actions have taken place at this Site.

2. Current Actions

On May 30, August 14 and September 5, 1996, EPA performed preliminary assessments at the site and identified the materials described in this memorandum.

C. State and Local Authorities' Roles

1. State and Local Actions to Date

On March 28, 1996, the Gloucester County Sheriffs Department notified NJDEP of leaking drums at the Site. The NJDEP Bureau of Emergency Response (BER) responded to the Site along with the Gloucester County Health and Sheriffs Departments and confirmed the reported conditions.

On April 24, 1996, NJDEP issued a Field Directive to Mr. Peter Yurgin for the removal of materials abandoned at the property. Mr. Yurgin has informed the NJDEP that the Estate of Ludwig Yurgin, the former owner/operator, does not have the resources to comply with the Field Directive.

On May 20, 1996, NJDEP formally referred the site to EPA.

2. Potential for Continued State/Local Response

Neither the NJDEP or the local government have the resources to perform the removal activities. These organizations will act in a supporting role throughout the removal action.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT,
AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Hazardous substances, pollutants or contaminants presently stored at the Site present a threat to the public health and welfare as defined by Section 300.415(b)(2) of the National Contingency Plan (NCP), in that there is an on-going release and a high potential for additional releases to occur. Many of the materials on the Site are flammable and/or corrosive and present a risk of direct

human contact. Any incompatible materials, if mixed, present the threat of a release and/or fire from chemical reaction:---

Hazardous materials at the Site are stored without regard for chemical compatibility. The structures in which they are stored are in extremely poor condition or have collapsed, increasing the chance of a reaction or release. Contact with the materials could present an immediate threat to the individuals involved.

Due to the presence of flammable liquids the threat of fire at the facility does exist. Should a fire occur it could spread across the facility and involve most of the material found at the Site. The toxic fumes created by the uncontrolled combustion of these materials could impact the surrounding residents, possibly necessitating an evacuation and the closure of county roads.

Many of the materials present are unknowns, therefore, the effects of acute or chronic exposure cannot be predicted.

Soil contamination is visible on the property, however, the extent of contamination is not known at this time. The soil, primarily fine and medium grain sand, is expected to have a high rate of permeability. This significantly contributes to the possibility of groundwater contamination. At this time, the percentage of area residences and farms using groundwater for drinking, bathing, cooking or crop irrigation is not known, therefore, it is not possible to accurately determine the impact of potential groundwater contamination.

B. Threats to the Environment

Waste material is leaking from some of the drums and other containers located at the Site. Runoff from rain or fire fighting efforts would carry material across the property and onto the surrounding fields and woodlands. In addition, runoff could enter a small, unnamed stream located to the east of the property. The stream flows to Edwards Run, which enters Mantua Creek and eventually the Delaware River.

Soil contamination is visible on the property, however, the extent of contamination is not known at this time. The soil, primarily fine and medium grain sand, is expected to have a high rate of permeability. This significantly contributes to the possibility of groundwater contamination. At this time, it is not possible to accurately determine the impact of potential groundwater contamination.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response action in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare and the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

The objective of the proposed removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The proposed removal action will include:

- i. Securing the Site.
- ii. Stabilization of materials located at the Site.
- iii. Inventory of materials located at the Site.
- iv. Sampling and analysis.
- v. Waste categorization.
- vi. Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

2. Contribution to Remedial Performance

The proposed action will contribute effectively to any long term remedial action with respect to the release or threatened release of hazardous substances. This removal action is consistent with any future long-term remedial action undertaken at the site.

3. Description of Alternative Technologies

Alternative technologies will be considered so long as they prove to be cost effective and efficient.

4. Engineering Evaluation/Cost Analysis (EE/CA)

Due to the time-critical nature of this removal action, an EE/CA will not be prepared.

5. Applicable or Relevant and Appropriate Requirements (ARARs)

ARARs within the scope of the project, including RCRA and CERCLA regulations that pertain to the disposal of hazardous wastes, will be met to the extent practicable.

6. Project Schedule

Once funding is approved thru this Action Memorandum the removal action can be initiated immediately. Stabilization, inventory, sampling, analysis and waste categorization of materials located at the site would begin immediately. Transport and disposal would occur shortly thereafter.

B. <u>Estimated Costs</u>	<u>Proposed Ceiling</u>
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1. Extramural Costs:

<u>Regional Allowance Costs:</u> (Total clean-up contractor costs include labor, equipment, materials, and laboratory disposal analysis)	\$400,000
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Other Extramural Costs not
Funded From the Regional
Allowance:

Total; START, including multiplier costs	\$ 70,000
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Subtotal, extramural costs

Extramural Costs Contingency (20% of subtotal, extramural Costs)	\$ 94,000
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TOTAL, EXTRAMURAL COSTS (rounded to nearest \$1,000)	\$564,000
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Intramural Costs:

Intramural Direct Costs	\$ 60,000
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Intramural Indirect Costs	\$120,000
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TOTAL, INTRAMURAL COSTS	\$180,000
-------------------------	-----------

<u>TOTAL, REMOVAL PROJECT CEILING</u>	\$744,000
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VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action or no action could result in the release of hazardous substances into the environment exposing nearby residents and employees of the surrounding businesses to hazardous substances and causing contamination of the soil, groundwater and nearby river system. The unrestricted access to the property could expose individuals entering the property to hazardous materials by direct contact.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

The On-Scene Coordinator will work with the Program Support Branch, the Office of Regional Counsel, the NJDEP and local authorities in an attempt to locate viable PRPs to recover clean-up costs.

IX. RECOMMENDATION

This decision document represents a selected Removal Action for the Yurgin Motors Site, Mantua, Gloucester County, New Jersey developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site. Conditions at the Site meet the NCP Section 300.415(b)(2) criteria for a Removal Action.

This Action Memorandum, if approved, will authorize a total project ceiling of \$744,000, with a mitigation ceiling of \$400,000. These estimated cost for this project are within the FY 96 Regional Advice of Allowance.

Please indicate your approval for the Yurgin Motors Site removal Action, pursuant to your authority delegated by Assistant Administrator J. Winston Portor, May 25, 1988, Redelegation Memorandum, Delegation Number R-14-1-A.

Approved: _____

W. J. Fox
Jeanne M. Fox
Regional Administrator

Date: _____

9/13/81

Disapproved: _____

Jeanne M. Fox
Regional Administrator

Date: _____

cc: (after approval is obtained)

J. Fox, RA
W. Muszynski, 2DRA
R. Caspe, 2ERRD
B. Sprague, 2ERR-RPB
J. Daloia, 2ERR-RPB
C. Peterson, 2ERRD-NJRB
D. Karlen, 2ORC-NJSF
B. Bellow, 2CD
R. Gherardi, 2OPM-FMB
S. Becker, 2ERR-RAB
S. Murphy, 2OPM-GCMB
C. Moyik, 2ERR-PSB
T. Johnson, 5202G
P. McKechnie, 2IG
E. Dominach, 2ERR-RAB
C. Kelly, START ✓
J. Smolenski, NJDEP

REFERENCE NO. 3

**Yurgin Motors Site
Current Ownership/Chain of Title**

**Work Assignment: 008
Site: 24ZZ**

**Prepared for:
U.S. Environmental Protection Agency**

Contract: 68-W4-0020

September 6, 1996

Suzanne Becker
Work Assignment Manager
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
290 Broadway, 18th Floor
New York, NY 10007-1866

Re: EPA Contract No. 68-W4-0020 (ESS)
Work Assignment No. 008-24ZZ
Multi-Site Removal PRP Search
(Ref. No. 01647-008)

Subject: Copies of Title Documents - Yurgin Motors (24ZZ)

Dear Susie:

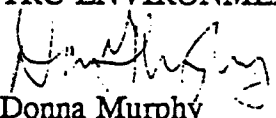
Enclosed please find copies of the title research documents for the Yurgin Motors site, Block 273, Lot 24, located in the Township of Mantua, Gloucester County, New Jersey.

As requested on Technical Direction Document (TDD) No. 30, dated September 3, 1996, TRC personnel performed tax and title research at the Gloucester County Registry of Deeds, located in Woodbury, NJ on September 4, 1996. Title research was conducted of deeds, mortgages, leases, liens, Lis Pendens, UCC filings, and other encumbrances from approximately 1940 to present. TRC obtained copies of all relevant documents, including certified copies of the current deeds and those immediately prior to the current deeds, as requested in the TDD.

If you have any questions, please do not hesitate to contact me at (212) 349-4616.

Sincerely,

TRC ENVIRONMENTAL CORPORATION


Donna Murphy
Project Manager

cc: Young Chang/EPA Project Officer
John J. Bachmann, Jr./ESS Contracting Officer

**CHAIN OF TITLE
YURGIN MOTORS SITE
Block 273, Lot 24
Mantua, New Jersey**

FUNB as Custodian for National Tax Funding
8/23/96

Book 3199, Page 82

Note: The purchaser of this Tax Sale Certificate has not yet foreclosed on the property.
Title is still in current owner.

FUNB as Custodian for National Tax Funding
8/23/96

Book 3199, Page 79

Note: The purchaser of this Tax Sale Certificate has not yet foreclosed on the property.
Title is still in current owner.

Yurgin, Ludwig
10/23/89 - present

Book 1934, Page 33

Note: This Deed subdivided the property as was originally conveyed to Ludwig Yurgin.
Portions of the original property were conveyed as follows: to Salvatore J.
Licciardello on 10/23/89 in Book 1934, Page 29; and to Victor F. Anderson on
2/13/86 in Book 1551, Page 68 (See Attached Deeds).

Yurgin, Ludwig
1/20/65 - 10/23/89

Book 1096, Page 108

Elizabeth A. Koenig and Harry Koenig, Jr.
5/29/36 - 1/20/65
10/28/25 - 1/20/65

Book 444, Page 202

Book 353, Page 492

The following is a summary of information taken from the 1996 Real Estate Property Index at the Gloucester County Tax Assessor's Office:

Block: 273
Lot: 24
Municipality: Mantua Township
Assessed Owner: Yurgin, Ludwig
Address: P.O. Box 163
Mullica Hill, NJ 08062
Property Location: 945 Bridgeton Pike
Size: 6 acres
Description: 3A - Farm regular
Buildings: 1 story trailer
Total Assessed Value: \$91,900
Assessed Land: \$72,900
Assessed Improvements: \$19,000

Block: 273
Lot: 24
Municipality: Mantua Township
Assessed Owner: Yurgin, Ludwig
Address: P.O. Box 163
Mullica Hill, NJ 08062
Property Location: 945 Bridgeton Pike
Size: 20.15 acres
Description: 3B - Farm qualified
Buildings: None
Total Assessed Value: \$6,200
Assessed Land: \$6,200

Please note that although all tax and title documents indicate that the current owner of the property is Ludwig Yurgin, a Mortgage obtained states that Mr. Yurgin is deceased and that his son, Peter Yurgin, is Executor of the Estate (See Mortgage Book 2044, Page 257, dated 3/23/92).

BRIDGETON

26.01

19.642 Ac.[±]
(b)

273

60.68 Ac.[±](s)
63.096 Ac.[±](d)

22

24

26.15 AC.[±]

23.02

17.988 Ac.[±]
(EXCL. RD)

24.02

520.30'
503.17' 2-BAC

35.72 AC[±]

25

HARRISON TWP

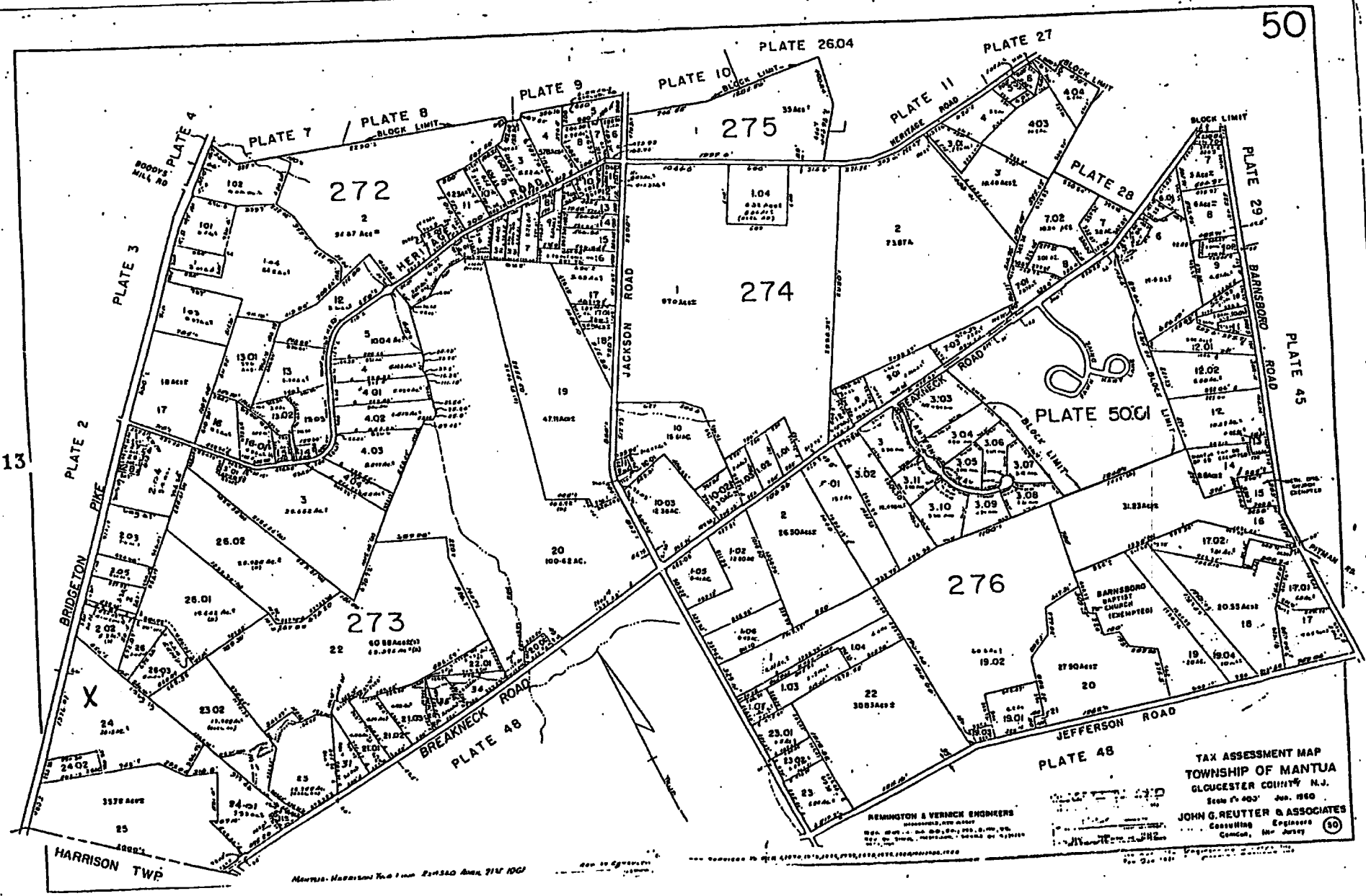
23

12.755 Ac.
(EXCL. RD)

24.01

9.33 AC[±]

MANTUA HARRISON Twp Line



TAX ASSESSMENT MAP
TOWNSHIP OF MANTUA
GLOUCESTER COUNTY, N.J.
June 1960
JOHN G. REUTTER & ASSOCIATES
Consulting Engineers
Camden, New Jersey

Mantua - Harrison Twp Line 214340 Area 214 1001

REFERENCE NO. 4

OHM Remediation Services Corporation - 200 Horizon Center Blvd. - Trenton, New Jersey 08691 - 609-584-8900

Project Name : Yurgin Motors				Project Location : Mantua, NJ			
Project Number : 19223		Contact : CHRIS BROWN			Coe Contact Phone : 609-588-6354		
Client Rep : Neil Norrell				Project Manager : Thomas O'Hara			
Item No.	Sample Number	Date	Time	C o m p	G r a b	Sample Description	Number of Containers

ANALYSIS DESIRED	
TOTAL SUSPENDS	TOC
PCB METHOD 8080	
TPH METHOD 8015	
BS & W	
BTEX	
TOTAL-PHENOLS . .	
TOTAL-SULFIDE . .	
TOTAL-ORGANIC-N	
PAINT FILTER	
TAL-METALS & MOLY	
TOTAL-CYANIDE . .	
TOTAL-SULFUR . . .	
TOTAL-HALIDES . .	
BTU-CONTENT	
PERCENT-ASH	
TOTAL-SOLIDS . . .	
TCL-NITRIBRIDES .	
TCL-PETROLEUM	
TCL-SEMIVOLATILE	
TCL VOLATILES ORG	
PH	
FLASH POINT	
REACTIVITY CN/S . .	
TCLP FULL	

[illegible]

**** Received 3 Quart Containers only**

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks :
1	1-8	<i>[Signature]</i>	<i>Kerth Baker</i>	11/1/96	1:05	14 CALENDAR DAY TAT ON ALL SAMPLES. RUSH TAT ON PCBs ON ALL SAMPLES. FAX RESULTS TO 609-586-6403 ATTN CHRIS BROWN C-1625
2	-	<i>Kerth Baker</i>	<i>[Signature]</i>	11/1/96	6pm	
3						
4						

* please send PCB's within 7 working days. (1/90 fix)

* Please analyze PCB's within 7 working days. (11/13/96 fax)

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620612
Client Name: ORSC
Field Number: BG01

Matrix: LIQUID
Date Received: 11/01/96

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Ash, Percent	0.70	0.01	%	1.	ND	0.01	11/14/96
BTU	12476.	100.	BTU/lb	1.	ND	100.	11/14/96
Cyanide, Total	ND	0.25	mg/Kg	1.	ND	0.25	11/12/96
Flash Point	160.	80.	°F	1.			11/14/96
PH	6.91		S.U.	1.			11/14/96
Cyanide, Reactive	ND	0.20	mg/Kg	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	40.0	mg/Kg	1.	ND	40.0	11/12/96
TOTAL SULFUR	ND	0.10	%	1.	ND	0.10	11/14/96
Total Organic Halogen	1951.	10.8	mg/Kg	1.	ND	10.	11/13/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620612DL 50
DATA FILE >G6075
CLIENT NAME OHMRSC
FIELD ID BG01

MATRIX Liquid
DILUTION FACTOR 50
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	1.00
319857	B-BHC	U	1.00
58899	G-BHC (Lindane)	U	1.00
319868	D-BHC	U	1.00
76448	Heptachlor	U	1.00
309002	Aldrin	U	1.00
1024573	Heptachlor Epoxide	U	1.00
959988	Endosulfan I	U	1.00
5103719	A-Chlordane	U	1.00
5103742	G-Chlordane	U	1.00
60571	Dieldrin	U	1.00
72559	4,4'-DDE	U	1.00
72208	Endrin	U	1.00
33213659	Endosulfan II	U	2.00
72548	4,4'-DDD	U	2.00
7421934	Endrin Aldehyde	U	2.00
1031078	Endosulfan Sulfate	U	2.00
50293	4,4'-DDT	U	2.00
53494705	Endrin Ketone	U	2.00
72435	Methoxychlor	U	10.0
8001352	Toxaphene	U	50.0
12674112	Aroclor-1016	U	25.0
11104282	Aroclor-1221	U	25.0
11141165	Aroclor-1232	U	25.0
53469219	Aroclor-1242	U	25.0
12672296	Aroclor-1248	U	25.0
11097691	Aroclor-1254	U	25.0
11096825	Aroclor-1260	866 D	25.0

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620612
DATA FILE >G6065
CLIENT NAME OHMRSC
FIELD ID BG01

MATRIX Liquid
DILUTION FACTOR 1
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	.020
319857	B-BHC	U	.020
58899	G-BHC (Lindane)	U	.020
319868	D-BHC	U	.020
76448	Heptachlor	U	.020
309002	Aldrin	U	.020
1024573	Heptachlor Epoxide	U	.020
959988	Endosulfan I	U	.020
5103719	A-Chlordane	U	.020
5103742	G-Chlordane	U	.020
60571	Dieldrin	U	.020
72559	4,4'-DDE	U	.020
72208	Endrin	U	.020
33213659	Endosulfan II	U	.040
72548	4,4'-DDD	U	.040
7421934	Endrin Aldehyde	U	.040
1031078	Endosulfan Sulfate	U	.040
50293	4,4'-DDT	U	.040
53494705	Endrin Ketone	U	.040
72435	Methoxychlor	U	.200
8001352	Toxaphene	U	1.00
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	688 E	.500

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620612
DATA FILE >C9673
CLIENT NAME OHMRSC
FIELD ID BG01

MATRIX Liquid
DILUTION FACTOR 10000
DATE EXTRACTED
DATE ANALYZED 11/12/96
ANALYZED BY DAVE

CAS #	COMPOUND	MG/KG	MDL	CAS #	COMPOUND	MG/KG	MDL
107028	Acrolein	U	500	78875	1,2-Dichloropropane	U	50
107131	Acrylonitrile	U	500	10061015	cis-1,3-Dichloropropene	U	50
74873	Chloromethane	U	50	79016	Trichloroethene	U	50
74839	Bromomethane	U	50	71432	Benzene	U	50
75014	Vinyl Chloride	U	50	124481	Dibromochloromethane	U	50
75003	Chloroethane	U	50	79005	1,1,2-Trichloroethane	U	50
75092	Methylene Chloride	U	50	10061026	trans-1,3-Dichloropropene	U	50
67641	Acetone	U	50	110758	2-Chloroethylvinylether	U	50
75150	Carbon Disulfide	U	50	75252	Bromoform	U	50
75694	Trichlorofluoromethane	U	50	591786	2-Hexanone	U	50
75354	1,1-Dichloroethene	U	50	108101	4-Methyl-2-pentanone	U	50
75343	1,1-Dichloroethane	U	50	127184	Tetrachloroethene	U	50
156605	trans-1,2-Dichloroethene	U	50	79345	1,1,2,2-Tetrachloroethane	U	50
67663	Chloroform	U	50	108883	Toluene	130	50
107062	1,2-Dichloroethane	U	50	108907	Chlorobenzene	U	50
78933	2-Butanone	U	50	100414	Ethylbenzene	190	50
71556	1,1,1-Trichloroethane	190	50	100425	Styrene	U	50
56235	Carbon Tetrachloride	U	50	1330207	m,p-Xylene	1200	100
108054	Vinyl Acetate	U	50	95476	o-Xylene	430	50
75274	Bromodichloromethane	U	50	156592	cis-1,2-Dichloroethene	U	50

SURROGATE COMPOUNDS
1,2-Dichloroethane-d4
Toluene-d8
Bromofluorobenzene

<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
101 %	76-114	OK
98 %	88-110	OK
103 %	86-115	OK

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected,
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620612
FILE 187339
CLIENT NAME OHMRSC
FIELD ID BG01

MATRIX Liquid
DILUTION FACTOR 10000
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/11/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/L	MDL
83329	Acenaphthene	80 J	100
208968	Acenaphthylene	U	100
120127	Anthracene	U	100
56553	Benzo(a)Anthracene	U	100
50328	Benzo(a)Pyrene	U	100
205992	Benzo(b)fluoranthene	U	100
191242	Benzo(g,h,i)Perylene	U	100
207089	Benzo(k)Fluoranthene	U	100
65850	Benzoic Acid	U	500
100516	Benzyl Alcohol	U	100
111444	bis(-2-Chloroethyl)Ether	U	100
108601	bis(2-Chloroisopropyl)ether	U	100
117817	Bis(2-Ethylhexyl)Phthalate	73 J W	100
111911	bis(-2-Chloroethoxy)Methane	U	100
101553	4-Bromophenyl-phenylether	U	100
85687	Butylbenzylphthalate	U	100
106478	4-Chloroaniline	U	100
91587	2-Chloronaphthalene	U	100
59507	4-Chloro-3-methylphenol	U	100
23	2-Chlorophenol	U	100
218019	4-Chlorophenyl-phenylether	U	100
218019	Chrysene	U	100
53703	Dibenzo(a,h)Anthracene	U	100
132649	Dibenzofuran	U	100
95501	1,2-Dichlorobenzene	U	100
541731	1,3-Dichlorobenzene	U	100
106467	1,4-Dichlorobenzene	U	100
91941	3,3'-Dichlorobenzidine	U	100
120832	2,4-Dichlorophenol	U	100
84662	Diethylphthalate	U	100
105679	2,4-Dimethylphenol	U	100
131113	Dimethyl Phthalate	U	100
84742	Di-n-Butylphthalate	U	100

CAS #	COMPOUND	mg/L	MDL
534521	4,6-Dinitro-2-methylphenol	U	100
51285	2,4-Dinitrophenol	U	100
121142	2,4-Dinitrotoluene	U	100
606202	2,6-Dinitrotoluene	U	100
117840	Di-n-octyl phthalate	U	100
206440	Fluoranthene	U	100
86737	Fluorene	U	100
118741	Hexachlorobenzene	U	100
87683	Hexachlorobutadiene	U	100
77474	Hexachlorocyclopentadiene	U	100
67721	Hexachloroethane	U	100
193395	Indeno(1,2,3-cd)Pyrene	U	100
78591	Isophorone	U	100
91576	2-Methylnaphthalene	2100 E	100
95487	2-Methylphenol	U	100
108394	3&4-Methylphenol	U	100
91203	Naphthalene	1000	100
88744	2-Nitroaniline	U	100
99092	3-Nitroaniline	U	100
100016	4-Nitroaniline	U	100
98953	Nitrobenzene	U	100
88755	2-Nitrophenol	U	100
100027	4-Nitrophenol	U	100
62759	N-Nitrosodimethylamine	U	100
86306	N-Nitrosodiphenylamine	U	100
621647	N-Nitroso-Di-n-propylamine	U	100
87865	Pentachlorophenol	U	100
85018	Phenanthrene	430	100
108952	Phenol	U	100
129000	Pyrene	110	100
120821	1,2,4-Trichlorobenzene	7400 E W	100
95954	2,4,5-Trichlorophenol	U	100
88062	2,4,6-Trichlorophenol	U	100

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
Nitrobenzene-d5	126 %	35-114	OUT
2-Fluorobiphenyl	90 %	43-116	OK
Terphenyl-d14	164 %	33-141	OUT
Phenol-d5	95 %	10- 94	OUT
2-Fluorophenol	88 %	21-100	OK
2,4,6-Tribromophenol	76 %	10-123	OK

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Concentration exceeds highest calibration standard.
W - Result exceeds specific ground water quality criteria.*

*Tags are based on Specific Ground Water Quality Criteria from New Jersey Register dated February 1, 1993.
** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620612DL
FILE >B7350
LABORATORY NAME OHMRSC
FIELD ID BG01

MATRIX Liquid
DILUTION FACTOR 100000
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/12/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/L	MDL	CAS #	COMPOUND	mg/L	MDL
83329	Acenaphthene	U	1000	534521	4,6-Dinitro-2-methylphenol	U	1000
208968	Acenaphthylene	U	1000	51285	2,4-Dinitrophenol	U	1000
120127	Anthracene	U	1000	121142	2,4-Dinitrotoluene	U	1000
56553	Benzo(a)Anthracene	U	1000	606202	2,6-Dinitrotoluene	U	1000
50328	Benzo(a)Pyrene	U	1000	117840	Di-n-octyl phthalate	U	1000
205992	Benzo(b)fluoranthene	U	1000	206440	Fluoranthene	U	1000
191242	Benzo(g,h,i)Perylene	U	1000	86737	Fluorene	U	1000
207089	Benzo(k)Fluoranthene	U	1000	118741	Hexachlorobenzene	U	1000
65850	Benzoic Acid	U	5000	87683	Hexachlorobutadiene	U	1000
100516	Benzyl Alcohol	U	1000	77474	Hexachlorocyclopentadiene	U	1000
111444	bis(-2-Chloroethyl)Ether	U	1000	67721	Hexachloroethane	U	1000
108601	bis(2-Chloroisopropyl)ether	U	1000	193395	Indeno(1,2,3-cd)Pyrene	U	1000
117817	Bis(2-Ethylhexyl)Phthalate	U	1000	78591	Isophorone	U	1000
111911	bis(-2-Chloroethoxy)Methane	U	1000	91576	2-Methylnaphthalene	1200 D	1000
101553	4-Bromophenyl-phenylether	U	1000	95487	2-Methylphenol	U	1000
85687	Butylbenzylphthalate	U	1000	108394	3&4-Methylphenol	U	1000
106478	4-Chloroaniline	U	1000	91203	Naphthalene	530 J D	1000
91587	2-Chloronaphthalene	U	1000	88744	2-Nitroaniline	U	1000
59507	4-Chloro-3-methylphenol	U	1000	99092	3-Nitroaniline	U	1000
7723	2-Chlorophenol	U	1000	100016	4-Nitroaniline	U	1000
218019	4-Chlorophenyl-phenylether	U	1000	98953	Nitrobenzene	U	1000
53703	Chrysene	U	1000	88755	2-Nitrophenol	U	1000
132649	Dibenzo(a,h)Anthracene	U	1000	100027	4-Nitrophenol	U	1000
95501	Dibenzofuran	U	1000	62759	N-Nitrosodimethylamine	U	1000
541731	1,2-Dichlorobenzene	U	1000	86306	N-Nitrosodiphenylamine	U	1000
106467	1,3-Dichlorobenzene	U	1000	621647	N-Nitroso-Di-n-propylamine	U	1000
91941	1,4-Dichlorobenzene	U	1000	87865	Pentachlorophenol	U	1000
120832	3,3'-Dichlorobenzidine	U	1000	85018	Phenanthrene	280 J D	1000
84662	2,4-Dichlorophenol	U	1000	108952	Phenol	U	1000
105679	Diethylphthalate	U	1000	129000	Pyrene	U	1000
131113	2,4-Dimethylphenol	U	1000	120821	1,2,4-Trichlorobenzene	4700 DW	1000
84742	Dimethyl Phthalate	U	1000	95954	2,4,5-Trichlorophenol	U	1000
	Di-n-Butylphthalate	U	1000	88062	2,4,6-Trichlorophenol	U	1000

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
Nitrobenzene-d5	53 %	35-114	OK
2-Fluorobiphenyl	65 %	43-116	OK
Terphenyl-d14	54 %	33-141	OK
Phenol-d5	62 %	10- 94	OK
2-Fluorophenol	56 %	21-100	OK
2,4,6-Tribromophenol	62 %	10-123	OK

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Concentration exceeds highest calibration standard.
W - Result exceeds specific ground water quality criteria.*

* All results are based on Specific Ground Water Quality Criteria from New Jersey Register dated February 1, 1993.
** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620612
DATA FILE >A8560
CLIENT NAME OHMRSC
FIELD ID BG01

MATRIX Liquid
DILUTION FACTOR 50
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

COMPOUND	UG/KG	MDL
2,4-D	U	539
SILVEX	U	53.9

Percent Solid of 92.8 is used for all target compounds.

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620612
Field ID: BG01
Client Name: ORSC

Matrix: Other
Date Received: 11/01/96

CAS No.	Element	Result MG/KG	MDL MG/KG	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	ND	10.0	1	P	11/08/96
7440-36-0	Antimony	ND	1.00	1	P	11/08/96
7440-38-2	Arsenic	ND	.080	1	F	11/08/96
7440-39-3	Barium	1.23	.300	1	P	11/08/96
7440-41-7	Beryllium	ND	.050	1	P	11/08/96
7440-43-9	Cadmium	ND	.100	1	P	11/08/96
7440-70-2	Calcium	437	10.0	1	P	11/08/96
7440-47-3	Chromium	1.72	.300	1	P	11/08/96
7440-48-4	Cobalt	ND	.300	1	P	11/08/96
7440-50-8	Copper	21.6	.300	1	P	11/08/96
7439-89-6	Iron	69.8	3.00	1	P	11/08/96
7439-92-1	Lead	11.1	3.00	1	P	11/08/96
7439-95-4	Magnesium	320	5.00	1	P	11/08/96
7439-96-5	Manganese	1.20	.150	1	P	11/08/96
7439-97-6	Mercury	4.33	1.00	1	CV	11/12/96
7440-02-0	Nickel	1.44	.400	1	P	11/08/96
7440-09-7	Potassium	23.2	20.0	1	P	11/08/96
7782-49-2	Selenium	ND	.050	1	F	11/08/96
7440-22-4	Silver	ND	.100	1	P	11/08/96
7440-23-5	Sodium	79.8	10.0	1	P	11/08/96
7440-28-0	Thallium	ND	.100	1	F	11/11/96
7440-62-2	Vanadium	1.84	.500	1	P	11/08/96
7440-66-6	Zinc	6.99	1.00	1	P	11/08/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP CV - Analyzed by Cold Vapor
F - Analyzed by GFA A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
REGULATED TCLP METALS
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620612
Field ID: BG01
Client Name: ORSC

Matrix: Leachate
Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	1.00	1	5.00	P	11/13/96
7440-39-3	Barium	.065	.050	1	100.00	P	11/13/96
7440-43-9	Cadmium	ND	.030	1	1.00	P	11/13/96
7440-47-3	Chromium	.034	.030	1	5.00	P	11/13/96
7439-92-1	Lead	.389	.300	1	5.00	P	11/13/96
7439-97-6	Mercury	ND	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	.500	1	1.00	P	11/13/96
7440-22-4	Silver	ND	.030	1	5.00	P	11/13/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620612
 DATA FILE >C9724
 CLIENT NAME OHMRSC
 FIELD ID BG01

MATRIX Leachate
 DILUTION FACTOR 10
 DATE EXTRACTED 11/14/96
 DATE ANALYZED DANIEL
 ANALYZED BY

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.050	0.5
78933	2-Butanone	U	.100	200.0
56235	Carbon Tetrachloride	U	.050	0.5
108907	Chlorobenzene	U	.050	100.0
67663	Chloroform	U	.050	6.0
75354	1,1-Dichloroethene	U	.050	0.7
107062	1,2-Dichloroethane	U	.050	0.5
127184	Tetrachloroethene	U	.050	0.7
79016	Trichloroethene	U	.050	0.5
75014	Vinyl Chloride	U	.100	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	<u>109 %</u>	76 - 114	OK
Toluene-d8	<u>101 %</u>	88 - 110	OK
Bromofluorobenzene	<u>109 %</u>	86 - 115	OK

(U) Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

CASE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620612	DILUTION FACTOR	10
DATA FILE	>F8743	DATE EXTRACTED	11/12/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/14/96
FIELD ID	BG01	ANALYZED BY	PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	.10	5.0
106467	1,4-Dichlorobenzene	U	.10	7.5
95478	2-Methylphenol	U	.10	200.0
108394	3&4-Methylphenol	.64	.10	200.0
67721	Hexachloroethane	U	.10	3.0
989103	Nitrobenzene	U	.10	2.0
87683	Hexachlorobutadiene	U	.10	0.5
88062	2,4,6-Trichlorophenol	U	.10	2.0
9109104	2,4,5-Trichlorophenol	U	.50	400.0
121142	2,4-Dinitrotoluene	U	.10	0.13
118741	Hexachlorobenzene	U	.10	0.13
878610	Pentachlorophenol	U	.10	100.0

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
2-Fluorophenol	40 %	21 - 100	OK
Phenol-d5	91 %	10 - 94	OK
Nitrobenzene-d5	96 %	35 - 114	OK
2-Fluorobiphenyl	88 %	43 - 116	OK
2,4,6-Tribromophenol	79 %	10 - 123	OK
Terphenyl-d14	68 %	33 - 141	OK

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
 * 3-Methylphenol = m-cresol
 * 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC.
TCLP PESTICIDES ANALYSIS DATA

SE NUMBER 1625
 MPLE NUMBER 9620612
 DATA FILE >G6133
 CLIENT NAME OHMRSC
 FIELD ID BG01

MATRIX
 DILUTION FACTOR 50
 DATE EXTRACTED 11/11/96
 DATE ANALYZED 11/12/96
 ANALYZED-BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
58899	G-BHC (Lindane)	U	.002	0.400
76448	Heptachlor	U	.002	0.008
1024573	Heptachlor Epoxide	U	.002	0.008
72208	Endrin	U	.005	0.02
72435	Methoxychlor	U	.025	10.0
5103719	A-Chlordane	U	.002	0.03
5103742	G-Chlordane	U	.002	0.03
8001352	Toxaphene	U	.050	0.5

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>ADVISORY LIMITS</u>	<u>STATUS</u>
DCB	72%	30 - 150	OK
Tetrachloro-m-xylene	60%	30 - 150	OK

U - Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

SE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620612	DILUTION FACTOR	1
DATA FILE	>A8541	DATE EXTRACTED	11/11/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/12/96
FIELD ID	BG01	ANALYZED BY	MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620613
Client Name: ORSC
Field Number: BG02A

Matrix: Sludge
Date Received: 11/01/96
% Moisture: 7.8

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Solids, Percent	92.2	.1	%	1.			11/11/96
Ash, Percent	6.3	0.01	%	1.	ND	0.01	11/14/96
BTU	13148.	100.	BTU/lb	1.	ND	100.	11/14/96
Cyanide, Total	ND	0.11	mg/Kg	1.	ND	0.25	11/12/96
Flash Point	>200	80.	°F	1.			11/14/96
PH	8.18		S.U.	1.			11/14/96
Cyanide, Reactive	ND	0.22	mg/Kg	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	43.4	mg/Kg	1.	ND	40.0	11/12/96
TOTAL SULFUR	ND	0.10	%	1.	ND	0.10	11/14/96
Total Organic Halogen	1632.	10.8	mg/Kg	1.	ND	10.	11/13/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 96206130L 20
DATA FILE >G6076
CLIENT NAME OHMRSC
FIELD ID BG02A

MATRIX Sludge
DILUTION FACTOR 600
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	.434
319857	B-BHC	U	.434
58899	G-BHC (Lindane)	U	.434
319868	D-BHC	U	.434
76448	Heptachlor	U	.434
309002	Aldrin	U	.434
1024573	Heptachlor Epoxide	U	.434
959988	Endosulfan I	U	.434
5103719	A-Chlordane	U	.434
5103742	G-Chlordane	U	.434
60571	Dieldrin	U	.434
72559	4,4'-DDE	U	.434
72208	Endrin	U	.434
33213659	Endosulfan II	U	.868
72548	4,4'-DDD	U	.868
7421934	Endrin Aldehyde	U	.868
1031078	Endosulfan Sulfate	U	.868
50293	4,4'-DDT	U	.868
53494705	Endrin Ketone	U	.868
72435	Methoxychlor	U	4.34
8001352	Toxaphene	U	21.7
12674112	Aroclor-1016	U	10.8
11104282	Aroclor-1221	U	10.8
11141165	Aroclor-1232	U	10.8
53469219	Aroclor-1242	U	10.8
12672296	Aroclor-1248	U	10.8
11097691	Aroclor-1254	U	10.8
11096825	Aroclor-1260	673 D	10.8

Percent Solid of 92.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620613
DATA FILE >G6066
CLIENT NAME OHMRSC
FIELD ID BG02A

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	.022
319857	B-BHC	U	.022
58899	G-BHC (Lindane)	U	.022
319868	D-BHC	U	.022
76448	Heptachlor	U	.022
309002	Aldrin	U	.022
1024573	Heptachlor Epoxide	U	.022
959988	Endosulfan I	U	.022
5103719	A-Chlordane	U	.022
5103742	G-Chlordane	U	.022
60571	Dieldrin	U	.022
72559	4,4'-DDE	U	.022
72208	Endrin	U	.022
33213659	Endosulfan II	U	.043
72548	4,4'-DDD	U	.043
7421934	Endrin Aldehyde	U	.043
1031078	Endosulfan Sulfate	U	.043
50293	4,4'-DDT	U	.043
53494705	Endrin Ketone	U	.043
72435	Methoxychlor	U	.217
8001352	Toxaphene	U	1.08
12674112	Aroclor-1016	U	.542
11104282	Aroclor-1221	U	.542
11141165	Aroclor-1232	U	.542
53469219	Aroclor-1242	U	.542
12672296	Aroclor-1248	U	.542
11097691	Aroclor-1254	U	.542
11096825	Aroclor-1260	521 E	.542

Percent Solid of 92.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

TEST NUMBER 1625
SAMPLE NUMBER 9620613
DATA FILE >C9694
CLIENT NAME OHMRSC
FIELD ID BG02A

MATRIX Sludge
DILUTION FACTOR 100
DATE EXTRACTED
DATE ANALYZED 11/13/96
ANALYZED BY DANIEL

CAS #	COMPOUND	UG/KG	MDL	CAS #	COMPOUND	UG/KG	MDL
107028	Acrolein	U	5400	78875	1,2-Dichloropropane	U	540
107131	Acrylonitrile	U	5400	10061015	cis-1,3-Dichloropropene	U	540
74873	Chloromethane	U	540	79016	Trichloroethene	170 J	540
74839	Bromomethane	U	540	71432	Benzene	280 J	540
75014	Vinyl Chloride	U	540	124481	Dibromochloromethane	U	540
75003	Chloroethane	U	540	79005	1,1,2-Trichloroethane	U	540
75092	Methylene Chloride	240 J	540	10061026	trans-1,3-Dichloropropene	U	540
67641	Acetone	1400	540	110758	2-Chloroethylvinylether	U	540
75150	Carbon Disulfide	U	540	75252	Bromoform	U	540
75694	Trichlorofluoromethane	U	540	591786	2-Hexanone	U	540
75354	1,1-Dichloroethene	U	540	108101	4-Methyl-2-pentanone	480 J	540
75343	1,1-Dichloroethane	460 J	540	127184	Tetrachloroethene	U	540
156605	trans-1,2-Dichloroethene	U	540	79345	1,1,2,2-Tetrachloroethane	U	540
67663	Chloroform	U	540	108883	Toluene	4600	540
107062	1,2-Dichloroethane	U	540	108907	Chlorobenzene	640	540
78933	2-Butanone	U	540	100414	Ethylbenzene	2600	540
71556	1,1,1-Trichloroethane	8200	540	100425	Styrene	U	540
56235	Carbon Tetrachloride	U	540	1330207	m,p-Xylene	17000	1100
108054	Vinyl Acetate	U	540	95476	o-Xylene	9200	540
274	Bromodichloromethane	U	540	156592	cis-1,2-Dichloroethene	U	540

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	104 %	70-121	OK
Toluene-d8	98 %	81-117	OK
Bromofluorobenzene	116 %	74-121	OK

Percent solid of 92.2 is used for all target compounds.

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected,
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620613
FILE 2B7356
TEST NAME QMIRSC
FIELD ID BG02A

MATRIX Sludge
DILUTION FACTOR 10000
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/12/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/Kg	MDL	CAS #	COMPOUND	mg/Kg	MDL
83329	Acenaphthene	U	3600	534521	4,6-Dinitro-2-methylphenol	U	3600
208968	Acenaphthylene	U	3600	51285	2,4-Dinitrophenol	U	3600
120127	Anthracene	U	3600	121142	2,4-Dinitrotoluene	U	3600
56553	Benzo(a)Anthracene	U	3600	606202	2,6-Dinitrotoluene	U	3600
50328	Benzo(a)Pyrene	U	3600	117840	Di-n-octyl phthalate	U	3600
205992	Benzo(b)fluoranthene	U	3600	206440	Fluoranthene	U	3600
191242	Benzo(g,h,i)Perylene	U	3600	86737	Fluorene	810 J	3600
207089	Benzo(k)Fluoranthene	U	3600	118741	Hexachlorobenzene	U	3600
65850	Benzoic Acid	U	18000	87683	Hexachlorobutadiene	U	3600
100516	Benzyl Alcohol	U	3600	77474	Hexachlorocyclopentadiene	U	3600
111444	bis(-2-Chloroethyl)Ether	U	3600	67721	Hexachloroethane	U	3600
108601	bis(2-Chloroisopropyl)ether	U	3600	193395	Indeno(1,2,3-cd)Pyrene	U	3600
117817	Bis(2-Ethylhexyl)Phthalate	U	3600	78591	Isophorone	U	3600
111911	bis(-2-Chloroethoxy)Methane	U	3600	91576	2-Methylnaphthalene	7400	3600
101553	4-Bromophenyl-phenylether	U	3600	95487	2-Methylphenol	U	3600
85687	Butylbenzylphthalate	U	3600	108394	3&4-Methylphenol	2300 J	3600
106478	4-Chloroaniline	U	3600	91203	Naphthalene	2800 J	3600
91587	2-Chloronaphthalene	U	3600	88744	2-Nitroaniline	U	3600
59507	4-Chloro-3-methylphenol	U	3600	99092	3-Nitroaniline	U	3600
23	2-Chlorophenol	U	3600	100016	4-Nitroaniline	U	3600
23	4-Chlorophenyl-phenylether	U	3600	98953	Nitrobenzene	U	3600
218019	Chrysene	U	3600	88755	2-Nitrophenol	U	3600
53703	Dibenzo(a,h)Anthracene	U	3600	100027	4-Nitrophenol	U	3600
132649	Dibenzofuran	U	3600	62759	N-Nitrosodimethylamine	U	3600
95501	1,2-Dichlorobenzene	U	3600	86306	N-Nitrosodiphenylamine	U	3600
541731	1,3-Dichlorobenzene	U	3600	621647	N-Nitroso-Di-n-propylamine	U	3600
106467	1,4-Dichlorobenzene	U	3600	87865	Pentachlorophenol	U	3600
91941	3,3'-Dichlorobenzidine	U	3600	85018	Phenanthrene	1900 J	3600
120832	2,4-Dichlorophenol	U	3600	108952	Phenol	U	3600
84662	Diethylphthalate	U	3600	129000	Pyrene	U	3600
105679	2,4-Dimethylphenol	U	3600	120821	1,2,4-Trichlorobenzene	18000	3600
131113	Dimethyl Phthalate	U	3600	95954	2,4,5-Trichlorophenol	U	3600
84742	Di-n-Butylphthalate	U	3600	88062	2,4,6-Trichlorophenol	U	3600

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
Nitrobenzene-d5	88 %	23-120	OK
2-Fluorobiphenyl	95 %	30-115	OK
Terphenyl-d14	222 %	18-137	OUT
Phenol-d5	100 %	24-113	OK
2-Fluorophenol	99 %	25-121	OK
2,4,6-Tribromophenol	58 %	19-122	OK

Percent solid of 92.2 is used for all target compounds..

● Indicates compound concentration found below MDL.
● Indicates compound analyzed for but not detected.
U - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Concentration exceeds highest calibration standard.

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620613
DATA FILE >A8561
CLIENT NAME OHMRSC
FIELD ID BG02A

MATRIX Sludge
DILUTION FACTOR 50
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

COMPOUND	UG/KG	MDL
2,4-D	U	542
SILVEX	U	54.2

Percent Solid of 92.2 is used for all target compounds.

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620613
Field ID: BG02A
Client Name: ORSC

Matrix: Sludge
Date Received: 11/01/96

CAS No.	Element	Result MG/KG	MDL MG/KG	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	947	72.3	1	P	11/08/96
7440-36-0	Antimony	ND	7.23	1	P	11/08/96
7440-38-2	Arsenic	2.37	1.16	2	F	11/08/96
7440-39-3	Barium	201	2.17	1	P	11/08/96
7440-41-7	Beryllium	ND	.362	1	P	11/08/96
7440-43-9	Cadmium	4.27	.723	1	P	11/08/96
7440-70-2	Calcium	1710	72.3	1	P	11/08/96
7440-47-3	Chromium	12.7	2.17	1	P	11/08/96
7440-48-4	Cobalt	6.41	2.17	1	P	11/08/96
7440-50-8	Copper	480	2.17	1	P	11/08/96
7439-89-6	Iron	5300	21.7	1	P	11/08/96
7439-92-1	Lead	1870	21.7	1	P	11/08/96
7439-95-4	Magnesium	634	36.2	1	P	11/08/96
7439-96-5	Manganese	59.7	1.08	1	P	11/08/96
7439-97-6	Mercury	ND	1.08	1	CV	11/12/96
7440-02-0	Nickel	44.7	2.89	1	P	11/08/96
7440-09-7	Potassium	ND	145	1	P	11/08/96
7782-49-2	Selenium	ND	.362	1	F	11/08/96
7440-22-4	Silver	ND	.723	1	P	11/08/96
7440-23-5	Sodium	1380	72.3	1	P	11/08/96
7440-28-0	Thallium	ND	36.2	1	P	11/11/96
7440-62-2	Vanadium	18.0	3.62	1	P	11/08/96
7440-66-6	Zinc	2940	7.23	1	P	11/08/96

Percent Solid of 92.2 is used for all target elements

ND - Element analyzed for but not detected.

P - Analyzed by ICP CV - Analyzed by Cold Vapor
F - Analyzed by GFA A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
REGULATED TCLP METALS
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620613
Field ID: BG02A
Client Name: ORSC

Matrix: Leachate
Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	1.00	1	5.00	P	11/13/96
7440-39-3	Barium	1.55	.050	1	100.00	P	11/13/96
7440-43-9	Cadmium	ND	.030	1	1.00	P	11/13/96
7440-47-3	Chromium	ND	.030	1	5.00	P	11/13/96
7439-92-1	Lead	2.69	.300	1	5.00	P	11/13/96
7439-97-6	Mercury	ND	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	.500	1	1.00	P	11/13/96
7440-22-4	Silver	ND	.030	1	5.00	P	11/13/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620613
 DATA FILE >C9721
 CLIENT NAME OHMRSC
 FIELD ID BG02A

MATRIX Leachate
 DILUTION FACTOR 10
 DATE EXTRACTED
 DATE ANALYZED 11/14/96
 ANALYZED BY DANIEL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.050	0.5
78933	2-Butanone	U	.100	200.0
56235	Carbon Tetrachloride	U	.050	0.5
108907	Chlorobenzene	U	.050	100.0
67663	Chloroform	U	.050	6.0
75354	1,1-Dichloroethene	U	.050	0.7
107062	1,2-Dichloroethane	U	.050	0.5
127184	Tetrachloroethene	U	.050	0.7
79016	Trichloroethene	U	.050	0.5
75014	Vinyl Chloride	U	.100	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	<u>103 %</u>	76 - 114	OK
Toluene-d8	<u>100 %</u>	88 - 110	OK
Bromofluorobenzene	<u>106 %</u>	86 - 115	OK

(U) Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

TEST NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620613	DILUTION FACTOR	10
DATA FILE	>F8744	DATE EXTRACTED	11/12/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/14/96
FIELD ID	BG02A	ANALYZED BY	PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	.10	5.0
106467	1,4-Dichlorobenzene	U	.10	7.5
95478	2-Methylphenol	U	.10	200.0
108394	3&4-Methylphenol	.84	.10	200.0
67721	Hexachloroethane	U	.10	3.0
989103	Nitrobenzene	U	.10	2.0
87683	Hexachlorobutadiene	U	.10	0.5
88062	2,4,6-Trichlorophenol	U	.10	2.0
9109104	2,4,5-Trichlorophenol	U	.50	400.0
121142	2,4-Dinitrotoluene	U	.10	0.13
118741	Hexachlorobenzene	U	.10	0.13
878610	Pentachlorophenol	U	.10	100.0

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
2-Fluorophenol	65 %	21 - 100	OK
Phenol-d5	87 %	10 - 94	OK
Nitrobenzene-d5	81 %	35 - 114	OK
2-Fluorobiphenyl	84 %	43 - 116	OK
2,4,6-Tribromophenol	72 %	10 - 123	OK
Terphenyl-d14	65 %	33 - 141	OK

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
* 3-Methylphenol = m-cresol
* 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC.
TCLP PESTICIDES ANALYSIS DATA

SE NUMBER 1625
SAMPLE NUMBER 9620613
DATA FILE >G6134
CLIENT NAME OHMRSC
FIELD ID BG02A

MATRIX
DILUTION FACTOR 50
DATE EXTRACTED 11/11/96
DATE ANALYZED 11/12/96
ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
58899	G-BHC (Lindane)	U	.002	0.400
76448	Heptachlor	U	.002	0.008
1024573	Heptachlor Epoxide	U	.002	0.008
72208	Endrin	U	.005	0.02
72435	Methoxychlor	U	.025	10.0
5103719	A-Chlordane	U	.002	0.03
5103742	G-Chlordane	U	.002	0.03
8001352	Toxaphene	U	.050	0.5

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>ADVISORY LIMITS</u>	<u>STATUS</u>
DCB	70%	30 - 150	OK
Tetrachloro-m-xylene	58%	30 - 150	OK

U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

USE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620613	DILUTION FACTOR	1
DATA FILE	>A8542	DATE EXTRACTED	11/11/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/12/96
FIELD ID	BG02A	ANALYZED BY	MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620614
Client Name: ORSC
Field Number: BG02B

Matrix: Sludge
Date Received: 11/01/96
% Moisture: 9.5

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Solids, Percent	90.5	.1	%	1.			11/11/96
Ash, Percent	5.5	0.01	%	1.	ND	0.01	11/14/96
BTU	18036.	100.	BTU/lb	1.	ND	100.	11/14/96
Cyanide, Total	ND	0.11	mg/Kg	1.	ND	0.25	11/12/96
Flash Point	>200	80.	°F	1.			11/14/96
PH	7.65		S.U.	1.			11/14/96
Cyanide, Reactive	ND	0.22	mg/Kg	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	44.2	mg/Kg	1.	ND	40.0	11/12/96
TOTAL SULFUR	ND	0.10	%	1.	ND	0.10	11/14/96
Total Organic Halogen	1913.	11.	mg/Kg	1.	ND	10.	11/13/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620614
DATA FILE >G6068
CLIENT NAME OHMRSC
FIELD ID BG02B

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	.022
319857	B-BHC	U	.022
58899	G-BHC (Lindane)	U	.022
319868	D-BHC	U	.022
76448	Heptachlor	U	.022
309002	Aldrin	U	.022
1024573	Heptachlor Epoxide	U	.022
959988	Endosulfan I	U	.022
5103719	A-Chlordane	U	.022
5103742	G-Chlordane	U	.022
60571	Dieldrin	U	.022
72559	4,4'-DDE	U	.022
72208	Endrin	U	.022
33213659	Endosulfan II	U	.044
72548	4,4'-DDD	U	.044
7421934	Endrin Aldehyde	U	.044
1031078	Endosulfan Sulfate	U	.044
50293	4,4'-DDT	U	.044
53494705	Endrin Ketone	U	.044
72435	Methoxychlor	U	.221
8001352	Toxaphene	U	1.10
12674112	Aroclor-1016	U	.552
11104282	Aroclor-1221	U	.552
11141165	Aroclor-1232	U	.552
53469219	Aroclor-1242	U	.552
12672296	Aroclor-1248	U	.552
11097691	Aroclor-1254	U	.552
11096825	Aroclor-1260	87.2	.552

Percent Solid of 90.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620614DL
 DATA FILE >C9675
 CLIENT NAME OHMRSC
 FIELD ID BG02B

MATRIX Sludge
 DILUTION FACTOR 10000
 DATE EXTRACTED
 DATE ANALYZED 11/12/96
 ANALYZED BY DAVE

CAS #	COMPOUND	UG/KG	MDL
107028	Acrolein	U	550000
107131	Acrylonitrile	U	550000
74873	Chloromethane	U	55000
74839	Bromomethane	U	55000
75014	Vinyl Chloride	U	55000
75003	Chloroethane	U	55000
75092	Methylene Chloride	U	55000
67641	Acetone	U	55000
75150	Carbon Disulfide	U	55000
75694	Trichlorofluoromethane	U	55000
75354	1,1-Dichloroethene	U	55000
75343	1,1-Dichloroethane	U	55000
156605	trans-1,2-Dichloroethene	U	55000
67663	Chloroform	U	55000
107062	1,2-Dichloroethane	U	55000
78933	2-Butanone	U	55000
71556	1,1,1-Trichloroethane	U	55000
56235	Carbon Tetrachloride	U	55000
108054	Vinyl Acetate	U	55000
5274	Bromodichloromethane	U	55000

CAS #	COMPOUND	UG/KG	MDL
78875	1,2-Dichloropropane	U	55000
10061015	cis-1,3-Dichloropropene	U	55000
79016	Trichloroethene	U	55000
71432	Benzene	U	55000
124481	Dibromochloromethane	U	55000
79005	1,1,2-Trichloroethane	U	55000
10061026	trans-1,3-Dichloropropene	U	55000
110758	2-Chloroethylvinylether	U	55000
75252	Bromoform	U	55000
591786	2-Hexanone	U	55000
108101	4-Methyl-2-pentanone	U	55000
127184	Tetrachloroethene	U	55000
79345	1,1,2,2-Tetrachloroethane	U	55000
108883	Toluene	U	55000
108907	Chlorobenzene	U	55000
100414	Ethylbenzene	U	55000
100425	Styrene	U	55000
1330207	m,p-Xylene	U	110000
95476	o-Xylene	U	55000
156592	cis-1,2-Dichloroethene	U	55000

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	101 %	70-121	OK
Toluene-d8	102 %	81-117	OK
Bromofluorobenzene	111 %	74-121	OK

Percent solid of 90.5 is used for all target compounds.

J - Indicates compound concentration found below MDL.
 U - Indicates compound analyzed for but not detected,
 D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
 E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620614
DATA FILE >C9702
CLIENT NAME OHMRSC
FIELD ID BG028

MATRIX Sludge
DILUTION FACTOR 100
DATE EXTRACTED
DATE ANALYZED 11/13/96
ANALYZED BY DAVE

CAS #	COMPOUND	UG/KG	MDL	CAS #	COMPOUND	UG/KG	MDL
107028	Acrolein	U	5500	78875	1,2-Dichloropropane	U	550
107131	Acrylonitrile	U	5500	10061015	cis-1,3-Dichloropropene	U	550
74873	Chloromethane	U	550	79016	Trichloroethene	400 J	550
74839	Bromomethane	U	550	71432	Benzene	440 J	550
75014	Vinyl Chloride	U	550	124481	Dibromochloromethane	U	550
75003	Chloroethane	U	550	79005	1,1,2-Trichloroethane	U	550
75092	Methylene Chloride	U	550	10061026	trans-1,3-Dichloropropene	U	550
67641	Acetone	1700	550	110758	2-Chloroethylvinylether	U	550
75150	Carbon Disulfide	U	550	75252	Bromoform	U	550
75694	Trichlorofluoromethane	U	550	591786	2-Hexanone	U	550
75354	1,1-Dichloroethene	U	550	108101	4-Methyl-2-pentanone	U	550
75343	1,1-Dichloroethane	U	550	127184	Tetrachloroethene	U	550
156605	trans-1,2-Dichloroethene	U	550	79345	1,1,2,2-Tetrachloroethane	U	550
67663	Chloroform	U	550	108883	Toluene	3400	550
107062	1,2-Dichloroethane	U	550	108907	Chlorobenzene	U	550
78933	2-Butanone	U	550	100414	Ethylbenzene	2500	550
71556	1,1,1-Trichloroethane	U	550	100425	Styrene	U	550
56235	Carbon Tetrachloride	U	550	1330207	m,p-Xylene	10000	1100
108054	Vinyl Acetate	U	550	95476	o-Xylene	5600	550
75274	Bromodichloromethane	U	550	156592	cis-1,2-Dichloroethene	U	550

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	107 %	70-121	OK
Toluene-d8	96 %	81-117	OK
Bromofluorobenzene	135 %	74-121	OUT

Percent solid of 90.6 is used for all target compounds.

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected,
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
 PLE NUMBER 9620614
 FILE B7341
 EVENT NAME OHMRSC
 FIELD ID BG02B

MATRIX Sludge
 DILUTION FACTOR 10000
 DATE EXTRACTED 11/07/96
 DATE ANALYZED 11/11/96
 ANALYZED BY PAUL

CAS #	COMPOUND	mg/Kg	MDL
83329	Acenaphthene	U	3700
208968	Acenaphthylene	U	3700
120127	Anthracene	U	3700
56553	Benzo(a)Anthracene	U	3700
50328	Benzo(a)Pyrene	U	3700
205992	Benzo(b)fluoranthene	U	3700
191242	Benzo(g,h,i)Perylene	U	3700
207089	Benzo(k)Fluoranthene	U	3700
65850	Benzoic Acid	U	18000
100516	Benzyl Alcohol	U	3700
111444	bis(-2-Chloroethyl)Ether	U	3700
108601	bis(2-Chloroisopropyl)ether	U	3700
117817	Bis(2-Ethylhexyl)Phthalate	U	3700
111911	bis(-2-Chloroethoxy)Methane	U	3700
101553	4-Bromophenyl-phenylether	U	3700
85687	Butylbenzylphthalate	U	3700
106478	4-Chloroaniline	U	3700
91587	2-Chloronaphthalene	U	3700
72507	4-Chloro-3-methylphenol	U	3700
8	2-Chlorophenol	U	3700
785723	4-Chlorophenyl-phenylether	U	3700
218019	Chrysene	U	3700
53703	Dibenzo(a,h)Anthracene	U	3700
132649	Dibenzofuran	U	3700
95501	1,2-Dichlorobenzene	U	3700
541731	1,3-Dichlorobenzene	U	3700
106467	1,4-Dichlorobenzene	U	3700
91941	3,3'-Dichlorobenzidine	U	3700
120832	2,4-Dichlorophenol	U	3700
84662	Diethylphthalate	U	3700
105679	2,4-Dimethylphenol	U	3700
131113	Dimethyl Phthalate	U	3700
84742	Di-n-Butylphthalate	U	3700

CAS #	COMPOUND	mg/Kg	MDL
534521	4,6-Dinitro-2-methylphenol	U	3700
51285	2,4-Dinitrophenol	U	3700
121142	2,4-Dinitrotoluene	U	3700
606202	2,6-Dinitrotoluene	U	3700
117840	Di-n-octyl phthalate	U	3700
206440	Fluoranthene	U	3700
86737	Fluorene	U	3700
118741	Hexachlorobenzene	U	3700
87683	Hexachlorobutadiene	U	3700
77474	Hexachlorocyclopentadiene	U	3700
67721	Hexachloroethane	U	3700
193395	Indeno(1,2,3-cd)Pyrene	U	3700
78591	Isophorone	U	3700
91576	2-Methylnaphthalene	1500 J	3700
95487	2-Methylphenol	U	3700
108394	3,4-Methylphenol	U	3700
91203	Naphthalene	450 J	3700
88744	2-Nitroaniline	U	3700
99092	3-Nitroaniline	U	3700
100016	4-Nitroaniline	U	3700
98953	Nitrobenzene	U	3700
88755	2-Nitrophenol	U	3700
100027	4-Nitrophenol	U	3700
62759	N-Nitrosodimethylamine	U	3700
86306	N-Nitrosodiphenylamine	U	3700
621647	N-Nitroso-Di-n-propylamine	U	3700
87865	Pentachlorophenol	U	3700
85018	Phenanthrene	U	3700
108952	Phenol	U	3700
129000	Pyrene	U	3700
120821	1,2,4-Trichlorobenzene	U	3700
95954	2,4,5-Trichlorophenol	U	3700
88062	2,4,6-Trichlorophenol	U	3700

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
Nitrobenzene-d5	49 %	23-120	OK
2-Fluorobiphenyl	67 %	30-115	OK
Terphenyl-d14	218 %	18-137	OUT
Phenol-d5	56 %	24-113	OK
2-Fluorophenol	42 %	25-121	OK
2,4,6-Tribromophenol	73 %	19-122	OK

Percent solid of 90.5 is used for all target compounds.

● Indicates compound concentration found below MDL.
 - Indicates compound analyzed for but not detected.
 D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
 E - Concentration exceeds highest calibration standard.

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620614
DATA FILE >A8562
CLIENT NAME OHMRSC
FIELD ID BG02B

MATRIX Sludge
DILUTION FACTOR 50
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

COMPOUND	UG/KG	MDL
2,4-D	U	552
SILVEX	U	55.2

Percent Solid of 90.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620614
Field ID: BG02B
Client Name: ORSC

Matrix: Sludge
Date Received: 11/01/96

CAS No.	Element	Result MG/KG	MDL MG/KG	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	1040	68.6	1	P	11/08/96
7440-36-0	Antimony	ND	6.86	1	P	11/08/96
7440-38-2	Arsenic	1.92	.536	1	F	11/11/96
7440-39-3	Barium	95.4	2.06	1	P	11/08/96
7440-41-7	Beryllium	ND	.343	1	P	11/08/96
7440-43-9	Cadmium	4.31	.686	1	P	11/08/96
7440-70-2	Calcium	1830	68.6	1	P	11/08/96
7440-47-3	Chromium	11.0	2.06	1	P	11/08/96
7440-48-4	Cobalt	6.75	2.06	1	P	11/08/96
7440-50-8	Copper	95.4	2.06	1	P	11/08/96
7439-89-6	Iron	4880	20.6	1	P	11/08/96
7439-92-1	Lead	1210	20.6	1	P	11/08/96
7439-95-4	Magnesium	741	34.3	1	P	11/08/96
7439-96-5	Manganese	51.4	1.03	1	P	11/08/96
7439-97-6	Mercury	ND	1.10	1	CV	11/12/96
7440-02-0	Nickel	9.20	2.75	1	P	11/08/96
7440-09-7	Potassium	139	137	1	P	11/08/96
7782-49-2	Selenium	ND	.335	1	F	11/08/96
7440-22-4	Silver	ND	.686	1	P	11/08/96
7440-23-5	Sodium	1430	68.6	1	P	11/08/96
7440-28-0	Thallium	ND	34.3	1	P	11/11/96
7440-62-2	Vanadium	19.1	3.43	1	P	11/08/96
7440-66-6	Zinc	1200	6.86	1	P	11/08/96

Percent Solid of 90.5 is used for all target elements

ND - Element analyzed for but not detected.

P - Analyzed by ICP CV - Analyzed by Cold Vapor
F - Analyzed by GFA A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
 REGULATED TCLP METALS
 INORGANIC ANALYSIS DATA SHEET

Case #: 1625
 Sample #: 9620614
 Field ID: BG02B
 Client Name: ORSC

Matrix: Leachate
 Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	1.00	1	5.00	P	11/13/96
7440-39-3	Barium	.434	.050	1	100.00	P	11/13/96
7440-43-9	Cadmium	ND	.030	1	1.00	P	11/13/96
7440-47-3	Chromium	ND	.030	1	5.00	P	11/13/96
7439-92-1	Lead	.553	.300	1	5.00	P	11/13/96
7439-97-6	Mercury	ND	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	.500	1	1.00	P	11/13/96
7440-22-4	Silver	ND	.030	1	5.00	P	11/13/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP CV - Analyzed by Cold Vapor
 F - Analyzed by GFA A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

CASE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620614	DILUTION FACTOR	10
DATA FILE	>C9708	DATE EXTRACTED	
CLIENT NAME	OHMRSC	DATE ANALYZED	11/13/96
FIELD ID	BG02B	ANALYZED BY	DAVE

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.050	0.5
78933	2-Butanone	U	.100	200.0
56235	Carbon Tetrachloride	U	.050	0.5
108907	Chlorobenzene	U	.050	100.0
67663	Chloroform	U	.050	6.0
75354	1,1-Dichloroethene	U	.050	0.7
107062	1,2-Dichloroethane	U	.050	0.5
127184	Tetrachloroethene	U	.050	0.7
79016	Trichloroethene	U	.050	0.5
75014	Vinyl Chloride	U	.100	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	103 %	76 - 114	OK
Toluene-d8	100 %	88 - 110	OK
Bromofluorobenzene	105 %	86 - 115	OK

(U) Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

CASE NUMBER	1625
SAMPLE NUMBER	9620614
DATA FILE	>F8745
CLIENT NAME	OHMRSC
FIELD ID	BG02B

MATRIX	Leachate
DILUTION FACTOR	10
DATE EXTRACTED	11/12/96
DATE ANALYZED	11/14/96
ANALYZED BY	PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	.10	5.0
106467	1,4-Dichlorobenzene	U	.10	7.5
95478	2-Methylphenol	U	.10	200.0
108394	3&4-Methylphenol	.23	.10	200.0
67721	Hexachloroethane	U	.10	3.0
989103	Nitrobenzene	U	.10	2.0
87683	Hexachlorobutadiene	U	.10	0.5
88062	2,4,6-Trichlorophenol	U	.10	2.0
9109104	2,4,5-Trichlorophenol	U	.50	400.0
121142	2,4-Dinitrotoluene	U	.10	0.13
118741	Hexachlorobenzene	U	.10	0.13
878610	Pentachlorophenol	U	.10	100.0

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
2-Fluorophenol	61 %	21 - 100	OK
Phenol-d5	92 %	10 - 94	OK
Nitrobenzene-d5	95 %	35 - 114	OK
2-Fluorobiphenyl	82 %	43 - 116	OK
2,4,6-Tribromophenol	92 %	10 - 123	OK
Terphenyl-d14	69 %	33 - 141	OK

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
* 3-Methylphenol = m-cresol
* 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC.
TCLP PESTICIDES ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620614
 DATA FILE >G6135
 CLIENT NAME OHMRSC
 FIELD ID BG02B

MATRIX Leachate
 DILUTION FACTOR 50
 DATE EXTRACTED 11/11/96
 DATE ANALYZED 11/12/96
 ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
58899	G-BHC (Lindane)	U	.002	0.400
76448	Heptachlor	U	.002	0.008
1024573	Heptachlor Epoxide	U	.002	0.008
72208	Endrin	U	.005	0.02
72435	Methoxychlor	U	.025	10.0
5103719	A-Chlordane	U	.002	0.03
5103742	G-Chlordane	U	.002	0.03
8001352	Toxaphene	U	.050	0.5

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>ADVISORY LIMITS</u>	<u>STATUS</u>
DCB	76%	30 - 150	OK
Tetrachloro-m-xylene	55%	30 - 150	OK

U - Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620614
DATA FILE >A8543
CLIENT NAME OHMRSC
FIELD ID BG02B

MATRIX Leachate
DILUTION FACTOR 1
DATE EXTRACTED 11/11/96
DATE ANALYZED 11/12/96
ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620615
Client Name: ORSC
Field Number: BG02C

Matrix: Sludge
Date Received: 11/01/96
% Moisture: 6.6

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Solids, Percent	93.4	.1	%	1.			11/11/96
Ash, Percent	5.2	0.01	%	1.	ND	0.01	11/14/96
BTU	15896.	100.	BTU/lb	1.	ND	100.	11/14/96
Cyanide, Total	ND	0.11	mg/Kg	1.	ND	0.25	11/12/96
Flash Point	>200	80.	°F	1.			11/14/96
PH	6.28		S.U.	1.			11/14/96
Cyanide, Reactive	ND	0.21	mg/Kg	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	42.8	mg/Kg	1.	ND	40.0	11/12/96
TOTAL SULFUR	ND	0.10	%	1.	ND	0.10	11/14/96
Total Organic Halogen	10804.	10.7	mg/Kg	1.	ND	10.	11/13/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER	1625
SAMPLE NUMBER	9620615DL 100
DATA FILE	>G6077
CLIENT NAME	OHMRSC
FIELD ID	BG02C

MATRIX	Sludge
DILUTION FACTOR	3000
DATE EXTRACTED	11/04/96
DATE ANALYZED	11/07/96
ANALYZED BY	MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	2.14
319857	B-BHC	U	2.14
58899	G-BHC (Lindane)	U	2.14
319868	D-BHC	U	2.14
76448	Heptachlor	U	2.14
309002	Aldrin	U	2.14
1024573	Heptachlor Epoxide	U	2.14
959988	Endosulfan I	U	2.14
5103719	A-Chlordane	U	2.14
5103742	G-Chlordane	U	2.14
60571	Dieldrin	U	2.14
72559	4,4'-DDE	U	2.14
72208	Endrin	U	2.14
33213659	Endosulfan II	U	4.28
72548	4,4'-DDD	U	4.28
7421934	Endrin Aldehyde	U	4.28
1031078	Endosulfan Sulfate	U	4.28
50293	4,4'-DDT	U	4.28
53494705	Endrin Ketone	U	4.28
72435	Methoxychlor	U	21.4
8001352	Toxaphene	U	107
12674112	Aroclor-1016	U	53.5
11104282	Aroclor-1221	U	53.5
11141165	Aroclor-1232	U	53.5
53469219	Aroclor-1242	U	53.5
12672296	Aroclor-1248	U	53.5
11097691	Aroclor-1254	U	53.5
11096825	Aroclor-1260	5140 D	53.5

Percent Solid of 93.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620615
DATA FILE >G6069
CLIENT NAME OHMRSC
FIELD ID BG02C

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	.232	.021
319857	B-BHC	U	.021
58899	G-BHC (Lindane)	U	.021
319868	D-BHC	U	.021
76448	Heptachlor	U	.021
309002	Aldrin	U	.021
1024573	Heptachlor Epoxide	U	.021
959988	Endosulfan I	U	.021
5103719	A-Chlordane	U	.021
5103742	G-Chlordane	U	.021
60571	Dieldrin	U	.021
72559	4,4'-DDE	U	.021
72208	Endrin	U	.021
33213659	Endosulfan II	U	.043
72548	4,4'-DDD	U	.043
7421934	Endrin Aldehyde	U	.043
1031078	Endosulfan Sulfate	U	.043
50293	4,4'-DDT	U	.043
53494705	Endrin Ketone	U	.043
72435	Methoxychlor	U	.214
8001352	Toxaphene	U	1.07
12674112	Aroclor-1016	U	.535
11104282	Aroclor-1221	U	.535
11141165	Aroclor-1232	U	.535
53469219	Aroclor-1242	U	.535
12672296	Aroclor-1248	U	.535
11097691	Aroclor-1254	U	.535
11096825	Aroclor-1260	1340 E	.535

Percent Solid of 93.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

SE NUMBER 1625
SAMPLE NUMBER 9620615
DATA FILE >C9696
CLIENT NAME OHMRSC
FIELD ID BG02C

MATRIX Sludge
DILUTION FACTOR 1000
DATE EXTRACTED
DATE ANALYZED 11/13/96
ANALYZED BY DANIEL

CAS #	COMPOUND	UG/KG	MDL
107028	Acrolein	U	54000
107131	Acrylonitrile	U	54000
74873	Chloromethane	U	5400
74839	Bromomethane	U	5400
75014	Vinyl Chloride	U	5400
75003	Chloroethane	U	5400
75092	Methylene Chloride	2400 J	5400
67641	Acetone	U	5400
75150	Carbon Disulfide	U	5400
75694	Trichlorofluoromethane	U	5400
75354	1,1-Dichloroethene	U	5400
75343	1,1-Dichloroethane	U	5400
156605	trans-1,2-Dichloroethene	U	5400
67663	Chloroform	U	5400
107062	1,2-Dichloroethane	U	5400
78933	2-Butanone	U	5400
71556	1,1,1-Trichloroethane	58000	5400
56235	Carbon Tetrachloride	U	5400
108054	Vinyl Acetate	U	5400
274	Bromodichloromethane	U	5400

CAS #	COMPOUND	UG/KG	MDL
78875	1,2-Dichloropropane	U	5400
10061015	cis-1,3-Dichloropropene	U	5400
79016	Trichloroethene	U	5400
71432	Benzene	U	5400
124481	Dibromochloromethane	U	5400
79005	1,1,2-Trichloroethane	U	5400
10061026	trans-1,3-Dichloropropene	U	5400
110758	2-Chloroethylvinylether	U	5400
75252	Bromoform	U	5400
591786	2-Hexanone	U	5400
108101	4-Methyl-2-pentanone	U	5400
127184	Tetrachloroethene	2600 J	5400
79345	1,1,2,2-Tetrachloroethane	U	5400
108883	Toluene	19000	5400
108907	Chlorobenzene	6500	5400
100414	Ethylbenzene	7100	5400
100425	Styrene	U	5400
1330207	m,p-Xylene	33000	11000
95476	o-Xylene	14000	5400
156592	cis-1,2-Dichloroethene	U	5400

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	105 %	70-121	OK
Toluene-d8	97 %	81-117	OK
Bromofluorobenzene	105 %	74-121	OK

Percent solid of 93.4 is used for all target compounds.

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected,
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
FILE NUMBER 9620615DL
FILE >F8750
CLIENT NAME OHMRSC
FIELD ID BG02C

MATRIX Sludge
DILUTION FACTOR 100000
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/15/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/Kg	MDL	CAS #	COMPOUND	mg/Kg	MDL
83329	Acenaphthene	U	36000	534521	4,6-Dinitro-2-methylphenol	U	36000
208968	Acenaphthylene	U	36000	51285	2,4-Dinitrophenol	U	36000
120127	Anthracene	U	36000	121142	2,4-Dinitrotoluene	U	36000
56553	Benzo(a)Anthracene	U	36000	606202	2,6-Dinitrotoluene	U	36000
50328	Benzo(a)Pyrene	U	36000	117840	Di-n-octyl phthalate	U	36000
205992	Benzo(b)fluoranthene	U	36000	206440	Fluoranthene	U	36000
191242	Benzo(g,h,i)Perylene	U	36000	86737	Fluorene	U	36000
207089	Benzo(k)Fluoranthene	U	36000	118741	Hexachlorobenzene	U	36000
65850	Benzoic Acid	U	180000	87683	Hexachlorobutadiene	U	36000
100516	Benzyl Alcohol	U	36000	77474	Hexachlorocyclopentadiene	U	36000
111444	bis(-2-Chloroethyl)Ether	U	36000	67721	Hexachloroethane	U	36000
108601	bis(2-Chloroisopropyl)ether	U	36000	193395	Indeno(1,2,3-cd)Pyrene	U	36000
117817	Bis(2-Ethylhexyl)Phthalate	U	36000	78591	Isophorone	U	36000
111911	bis(-2-Chloroethoxy)Methane	U	36000	91576	2-Methylnaphthalene	18000 J D	36000
101553	4-Bromophenyl-phenylether	U	36000	95487	2-Methylphenol	U	36000
85687	Butylbenzylphthalate	U	36000	108394	3,4-Methylphenol	U	36000
106478	4-Chloroaniline	U	36000	91203	Naphthalene	5900 J D	36000
91587	2-Chloronaphthalene	U	36000	88744	2-Nitroaniline	U	36000
58587	4-Chloro-3-methylphenol	U	36000	99092	3-Nitroaniline	U	36000
7005723	2-Chlorophenol	U	36000	100016	4-Nitroaniline	U	36000
218019	4-Chlorophenyl-phenylether	U	36000	98953	Nitrobenzene	U	36000
53703	Chrysene	U	36000	88755	2-Nitrophenol	U	36000
132649	Dibenzo(a,h)Anthracene	U	36000	100027	4-Nitrophenol	U	36000
95501	Dibenzofuran	U	36000	62759	N-Nitrosodimethylamine	U	36000
541731	1,2-Dichlorobenzene	U	36000	86306	N-Nitrosodiphenylamine	U	36000
106467	1,3-Dichlorobenzene	U	36000	621647	N-Nitroso-Di-n-propylamine	U	36000
91941	1,4-Dichlorobenzene	U	36000	87865	Pentachlorophenol	U	36000
120832	3,3'-Dichlorobenzidine	U	36000	85018	Phenanthrene	3700 J D	36000
84662	2,4-Dichlorophenol	U	36000	108952	Phenol	U	36000
105679	Diethylphthalate	U	36000	129000	Pyrene	U	36000
131113	2,4-Dimethylphenol	U	36000	120821	1,2,4-Trichlorobenzene	160000 D	36000
84742	Dimethyl Phthalate	U	36000	95954	2,4,5-Trichlorophenol	U	36000
	Di-n-Butylphthalate	U	36000	88062	2,4,6-Trichlorophenol	U	36000

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
Nitrobenzene-d5	77 %	23-120	OK
2-Fluorobiphenyl	88 %	30-115	OK
Terphenyl-d14	73 %	18-137	OK
Phenol-d5	81 %	24-113	OK
2-Fluorophenol	55 %	25-121	OK
2,4,6-Tribromophenol	62 %	19-122	OK

Percent solid of 93.4 is used for all target compounds.

● Indicates compound concentration found below MDL.
- Indicates compound analyzed for but not detected.
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Concentration exceeds highest calibration standard.

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620615
FILE B7342
LABORATORY NAME OHMRSC
FIELD ID BG02C

MATRIX Sludge
DILUTION FACTOR 10000
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/11/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/Kg	MDL	CAS #	COMPOUND	mg/Kg	MDL
83329	Acenaphthene	U	3600	534521	4,6-Dinitro-2-methylphenol	U	3600
208968	Acenaphthylene	U	3600	51285	2,4-Dinitrophenol	U	3600
120127	Anthracene	450 J	3600	121142	2,4-Dinitrotoluene	U	3600
56553	Benzo(a)Anthracene	U	3600	606202	2,6-Dinitrotoluene	U	3600
50328	Benzo(a)Pyrene	U	3600	117840	Di-n-octyl phthalate	U	3600
205992	Benzo(b)fluoranthene	U	3600	206440	Fluoranthene	U	3600
191242	Benzo(g,h,i)Perylene	U	3600	86737	Fluorene	1800 J	3600
207089	Benzo(k)Fluoranthene	U	3600	118741	Hexachlorobenzene	U	3600
65850	Benzoic Acid	U	18000	87683	Hexachlorobutadiene	U	3600
100516	Benzyl Alcohol	U	3600	77474	Hexachlorocyclopentadiene	U	3600
111444	bis(-2-Chloroethyl)Ether	U	3600	67721	Hexachloroethane	U	3600
108601	bis(2-Chloroisopropyl)ether	U	3600	193395	Indeno(1,2,3-cd)Pyrene	U	3600
117817	Bis(2-Ethylhexyl)Phthalate	U	3600	78591	Isophorone	U	3600
111911	bis(-2-Chloroethoxy)Methane	U	3600	91576	2-Methylnaphthalene	13000	3600
101553	4-Bromophenyl-phenylether	U	3600	95487	2-Methylphenol	U	3600
85687	Butylbenzylphthalate	U	3600	108394	3,4-Methylphenol	U	3600
106478	4-Chloroaniline	U	3600	91203	Naphthalene	4600	3600
91587	2-Chloronaphthalene	U	3600	88744	2-Nitroaniline	U	3600
59507	4-Chloro-3-methylphenol	U	3600	99092	3-Nitroaniline	U	3600
8	2-Chlorophenol	U	3600	100016	4-Nitroaniline	U	3600
7723	4-Chlorophenyl-phenylether	U	3600	98953	Nitrobenzene	U	3600
218019	Chrysene	U	3600	88755	2-Nitrophenol	U	3600
53703	Dibenzo(a,h)Anthracene	U	3600	100027	4-Nitrophenol	U	3600
132649	Dibenzofuran	620 J	3600	62759	N-Nitrosodimethylamine	U	3600
95501	1,2-Dichlorobenzene	U	3600	86306	N-Nitrosodiphenylamine	U	3600
541731	1,3-Dichlorobenzene	U	3600	621647	N-Nitroso-Di-n-propylamine	U	3600
106467	1,4-Dichlorobenzene	950 J	3600	87865	Pentachlorophenol	U	3600
91941	3,3'-Dichlorobenzidine	U	3600	85018	Phenanthrene	3100 J	3600
120832	2,4-Dichlorophenol	U	3600	108952	Phenol	1800 J	3600
84662	Diethylphthalate	U	3600	129000	Pyrene	U	3600
105679	2,4-Dimethylphenol	U	3600	120821	1,2,4-Trichlorobenzene	81000 E	3600
131113	Dimethyl Phthalate	U	3600	95954	2,4,5-Trichlorophenol	U	3600
84742	Di-n-Butylphthalate	U	3600	88062	2,4,6-Trichlorophenol	U	3600

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
Nitrobenzene-d5	76 %	23-120	OK
2-Fluorobiphenyl	88 %	30-115	OK
Terphenyl-d14	195 %	18-137	OUT
Phenol-d5	83 %	24-113	OK
2-Fluorophenol	74 %	25-121	OK
2,4,6-Tribromophenol	65 %	19-122	OK

Percent solid of 93.4 is used for all target compounds.

● Indicates compound concentration found below MDL.
● Indicates compound analyzed for but not detected.
U - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Concentration exceeds highest calibration standard.

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620615
DATA FILE >A8563
CLIENT NAME OHMRSC
FIELD ID BG02C

MATRIX Sludge
DILUTION FACTOR 50
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

COMPOUND	UG/KG	MDL
2,4-D	U	535
SILVEX	U	53.5

Percent Solid of 93.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620615
Field ID: BG02C
Client Name: ORSC

Matrix: Sludge
Date Received: 11/01/96

CAS No.	Element	Result MG/KG	MDL MG/KG	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	74.9	4.28	1	P	11/08/96
7440-36-0	Antimony	ND	.428	1	P	11/08/96
7440-38-2	Arsenic	.147	.068	2	F	11/08/96
7440-39-3	Barium	33.9	.128	1	P	11/08/96
7440-41-7	Beryllium	ND	.021	1	P	11/08/96
7440-43-9	Cadmium	.916	.043	1	P	11/08/96
7440-70-2	Calcium	278	4.28	1	P	11/08/96
7440-47-3	Chromium	2.09	.128	1	P	11/08/96
7440-48-4	Cobalt	1.07	.128	1	P	11/08/96
7440-50-8	Copper	22.3	.128	1	P	11/08/96
7439-89-6	Iron	527	1.28	1	P	11/08/96
7439-92-1	Lead	226	1.28	1	P	11/08/96
7439-95-4	Magnesium	97.2	2.14	1	P	11/08/96
7439-96-5	Manganese	5.48	.064	1	P	11/08/96
7439-97-6	Mercury	14.8	3.21	3	CV	11/12/96
7440-02-0	Nickel	2.34	.171	1	P	11/08/96
7440-09-7	Potassium	257	8.57	1	P	11/08/96
7782-49-2	Selenium	ND	.021	1	F	11/08/96
7440-22-4	Silver	ND	.043	1	P	11/08/96
7440-23-5	Sodium	784	4.28	1	P	11/08/96
7440-28-0	Thallium	ND	2.14	1	P	11/11/96
7440-62-2	Vanadium	5.40	.214	1	P	11/08/96
7440-66-6	Zinc	83.9	.428	1	P	11/08/96

Percent Solid of 93.4 is used for all target elements

ND - Element analyzed for but not detected.

P - Analyzed by ICP CV - Analyzed by Cold Vapor
F - Analyzed by GFA A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
REGULATED TCLP METALS
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620615
Field ID: BG02C
Client Name: ORSC

Matrix: Leachate
Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	2.00	1	5.00	P	11/13/96
7440-39-3	Barium	.406	.100	1	100.00	P	11/13/96
7440-43-9	Cadmium	ND	.060	1	1.00	P	11/13/96
7440-47-3	Chromium	ND	.060	1	5.00	P	11/13/96
7439-92-1	Lead	1.07	.600	1	5.00	P	11/13/96
7439-97-6	Mercury	.004	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	1.00	1	1.00	P	11/13/96
7440-22-4	Silver	ND	.060	1	5.00	P	11/13/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

BASE NUMBER	<u>1625</u>	MATRIX	<u>Leachate</u>
SAMPLE NUMBER	<u>9620615</u>	DILUTION FACTOR	<u>10</u>
DATA FILE	<u>>C9709</u>	DATE EXTRACTED	
CLIENT NAME	<u>OHMRSC</u>	DATE ANALYZED	<u>11/13/96</u>
FIELD ID	<u>BG02C</u>	ANALYZED BY	<u>DAVE</u>

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.050	0.5
78933	2-Butanone	U	.100	200.0
56235	Carbon Tetrachloride	U	.050	0.5
108907	Chlorobenzene	U	.050	100.0
67663	Chloroform	U	.050	6.0
75354	1,1-Dichloroethene	U	.050	0.7
107062	1,2-Dichloroethane	U	.050	0.5
127184	Tetrachloroethene	U	.050	0.7
79016	Trichloroethene	U	.050	0.5
75014	Vinyl Chloride	U	.100	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	<u>103 %</u>	76 - 114	OK
Toluene-d8	<u>97 %</u>	88 - 110	OK
Bromofluorobenzene	<u>113 %</u>	86 - 115	OK

(U) Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620618
DATA FILE >C9725
CLIENT NAME OHMRSC
FIELD ID BG02C

MATRIX Leachate
DILUTION FACTOR 40
DATE EXTRACTED
DATE ANALYZED 11/14/96
ANALYZED BY DANIEL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.200	0.5
78933	2-Butanone	U	.400	200.0
56235	Carbon Tetrachloride	U	.200	0.5
108907	Chlorobenzene	U	.200	100.0
67663	Chloroform	U	.200	6.0
75354	1,1-Dichloroethene	U	.200	0.7
107062	1,2-Dichloroethane	U	.200	0.5
127184	Tetrachloroethene	U	.200	0.7
79016	Trichloroethene	U	.200	0.5
75014	Vinyl Chloride	U	.400	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	110 %	76 - 114	OK
Toluene-d8	95 %	88 - 110	OK
Bromofluorobenzene	111 %	86 - 115	OK

(U) Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620615
DATA FILE >F8746
CLIENT NAME OHMRSC
FIELD ID BG02C

MATRIX
DILUTION FACTOR
DATE EXTRACTED
DATE ANALYZED
ANALYZED BY

Leachate
500
11/12/96
11/14/96
PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	5.00	5.0
106467	1,4-Dichlorobenzene	U	5.00	7.5
95478	2-Methylphenol	U	5.00	200.0
108394	3&4-Methylphenol	6.99	5.00	200.0
67721	Hexachloroethane	U	5.00	3.0
989103	Nitrobenzene	U	5.00	2.0
87683	Hexachlorobutadiene	U	5.00	0.5
88062	2,4,6-Trichlorophenol	U	5.00	2.0
9109104	2,4,5-Trichlorophenol	U	25.00	400.0
121142	2,4-Dinitrotoluene	U	5.00	0.13
118741	Hexachlorobenzene	U	5.00	0.13
878610	Pentachlorophenol	U	5.00	100.0

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
2-Fluorophenol	43 %	21 - 100	OK
Phenol-d5	90 %	10 - 94	OK
Nitrobenzene-d5	114 %	35 - 114	OK
2-Fluorobiphenyl	96 %	43 - 116	OK
2,4,6-Tribromophenol	32 %	10 - 123	OK
Terphenyl-d14	79 %	33 - 141	OK

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
* 3-Methylphenol = m-cresol
* 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC.
TCLP PESTICIDES ANALYSIS DATA

BASE NUMBER	<u>1625</u>	MATRIX	<u>Leachate</u>
SAMPLE NUMBER	<u>9620615</u>	DILUTION FACTOR	<u>50</u>
DATA FILE	<u>>G6136</u>	DATE EXTRACTED	<u>11/11/96</u>
CLIENT NAME	<u>OHMRSC</u>	DATE ANALYZED	<u>11/12/96</u>
FIELD ID	<u>BG02C</u>	ANALYZED BY	<u>MARK</u>

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
58899	G-BHC (Lindane)	U	.002	0.400
76448	Heptachlor	U	.002	0.008
1024573	Heptachlor Epoxide	U	.002	0.008
72208	Endrin	U	.005	0.02
72435	Methoxychlor	U	.025	10.0
5103719	A-Chlordane	U	.002	0.03
5103742	G-Chlordane	U	.002	0.03
8001352	Toxaphene	U	.050	0.5

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>ADVISORY LIMITS</u>	<u>STATUS</u>
DCB	<u>34%</u>	30 - 150	OK
Tetrachloro-m-xylene	<u>44%</u>	30 - 150	OK

U - Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620615
DATA FILE >A8544
CLIENT NAME OHMRSC
FIELD ID BG02C

MATRIX Leachate
DILUTION FACTOR 1
DATE EXTRACTED 11/11/96
DATE ANALYZED 11/12/96
ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620616
Client Name: ORSC
Field Number: BG03

Matrix: LIQUID
Date Received: 11/01/96

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Ash, Percent	1.7	0.01	%	1.	ND	0.01	11/14/96
BTU	14815.	100.	BTU/lb	1.	ND	100.	11/14/96
Cyanide, Total	ND	0.25	mg/Kg	1.	ND	0.25	11/12/96
Flash Point	125.	80.	°F	1.			11/14/96
PH	6.0		S.U.	1.			11/14/96
Cyanide, Reactive	ND	0.20	mg/Kg	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	40.0	mg/Kg	1.	ND	40.0	11/12/96
TOTAL SULFUR	ND	0.10	%	1.	ND	0.10	11/14/96
Total Organic Halogen	8282.	10.8	mg/Kg	1.	ND	10.	11/13/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620616
DATA FILE >G6070
CLIENT NAME OHMRSC
FIELD ID BG03

MATRIX Liquid
DILUTION FACTOR 1
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	.020
319857	B-BHC	U	.020
58899	G-BHC (Lindane)	U	.020
319868	D-BHC	U	.020
76448	Heptachlor	U	.020
309002	Aldrin	U	.020
1024573	Heptachlor Epoxide	U	.020
959988	Endosulfan I	U	.020
5103719	A-Chlordane	U	.020
5103742	G-Chlordane	U	.020
60571	Dieldrin	U	.020
72559	4,4'-DDE	U	.020
72208	Endrin	U	.020
33213659	Endosulfan II	U	.040
72548	4,4'-DDD	U	.040
7421934	Endrin Aldehyde	U	.040
1031078	Endosulfan Sulfate	U	.040
50293	4,4'-DDT	U	.040
53494705	Endrin Ketone	U	.040
72435	Methoxychlor	U	.200
8001352	Toxaphene	U	1.00
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	852 E	.500

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620616DL 50
DATA FILE >G6078
CLIENT NAME OHMRSC
FIELD ID BG03

MATRIX Liquid
DILUTION FACTOR 50
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	1.00
319857	B-BHC	U	1.00
58899	G-BHC (Lindane)	U	1.00
319868	D-BHC	U	1.00
76448	Heptachlor	U	1.00
309002	Aldrin	U	1.00
1024573	Heptachlor Epoxide	U	1.00
959988	Endosulfan I	U	1.00
5103719	A-Chlordane	U	1.00
5103742	G-Chlordane	U	1.00
60571	Dieldrin	U	1.00
72559	4,4'-DDE	U	1.00
72208	Endrin	U	1.00
33213659	Endosulfan II	U	2.00
72548	4,4'-DDD	U	2.00
7421934	Endrin Aldehyde	U	2.00
1031078	Endosulfan Sulfate	U	2.00
50293	4,4'-DDT	U	2.00
53494705	Endrin Ketone	U	2.00
72435	Methoxychlor	U	10.0
8001352	Toxaphene	U	50.0
12674112	Aroclor-1016	U	25.0
11104282	Aroclor-1221	U	25.0
11141165	Aroclor-1232	U	25.0
53469219	Aroclor-1242	U	25.0
12672296	Aroclor-1248	U	25.0
11097691	Aroclor-1254	U	25.0
11096825	Aroclor-1260	1460 D	25.0

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 96206160L
 DATA FILE >C9697
 CLIENT NAME OHMRSC
 FIELD ID BG03

MATRIX Liquid
 DILUTION FACTOR 1000000
 DATE EXTRACTED _____
 DATE ANALYZED 11/13/96
 ANALYZED BY DANIEL

CAS #	COMPOUND	MG/KG	MDL	CAS #	COMPOUND	MG/KG	MDL
107028	Acrolein	U	50000	78875	1,2-Dichloropropane	U	5000
107131	Acrylonitrile	U	50000	10061015	cis-1,3-Dichloropropene	U	5000
74873	Chloromethane	U	5000	79016	Trichloroethene	U	5000
74839	Bromomethane	U	5000	71432	Benzene	U	5000
75014	Vinyl Chloride	U	5000	124481	Dibromochloromethane	U	5000
75003	Chloroethane	U	5000	79005	1,1,2-Trichloroethane	U	5000
75092	Methylene Chloride	U	5000	10061026	trans-1,3-Dichloropropene	U	5000
67641	Acetone	U	5000	110758	2-Chloroethylvinylether	U	5000
75150	Carbon Disulfide	U	5000	75252	Bromoform	U	5000
75694	Trichlorofluoromethane	U	5000	591786	2-Hexanone	U	5000
75354	1,1-Dichloroethene	U	5000	108101	4-Methyl-2-pentanone	U	5000
75343	1,1-Dichloroethane	U	5000	127184	Tetrachloroethene	U	5000
156605	trans-1,2-Dichloroethene	U	5000	79345	1,1,2,2-Tetrachloroethane	U	5000
67663	Chloroform	U	5000	108883	Toluene	U	5000
107062	1,2-Dichloroethane	U	5000	108907	Chlorobenzene	U	5000
78933	2-Butanone	U	5000	100414	Ethylbenzene	11160 D	5000
71556	1,1,1-Trichloroethane	U	5000	100425	Styrene	U	5000
56235	Carbon Tetrachloride	U	5000	1330207	m,p-Xylene	121000 D	10000
108054	Vinyl Acetate	U	5000	95476	o-Xylene	43000 D	5000
5274	Bromodichloromethane	U	5000	156592	cis-1,2-Dichloroethene	U	5000

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	105 %	76-114	OK
Toluene-d8	104 %	88-110	OK
Bromofluorobenzene	105 %	86-115	OK

J - Indicates compound concentration found below MDL.
 U - Indicates compound analyzed for but not detected,
 D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
 E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620616
 DATA FILE >C9677
 CLIENT NAME OHMRSC
 FIELD ID BG03

MATRIX Liquid
 DILUTION FACTOR 100000
 DATE EXTRACTED
 DATE ANALYZED 11/12/96
 ANALYZED BY DAVE

CAS #	COMPOUND	MG/KG	MDL	CAS #	COMPOUND	MG/KG	MDL
107028	Acrolein	U	5000	78875	1,2-Dichloropropane	U	500
107131	Acrylonitrile	U	5000	10061015	cis-1,3-Dichloropropene	U	500
74873	Chloromethane	U	500	79016	Trichloroethene	U	500
74839	Bromomethane	U	500	71432	Benzene	U	500
75014	Vinyl Chloride	U	500	124481	Dibromochloromethane	U	500
75003	Chloroethane	U	500	79005	1,1,2-Trichloroethane	U	500
75092	Methylene Chloride	U	500	10061026	trans-1,3-Dichloropropene	U	500
67641	Acetone	U	500	110758	2-Chloroethylvinylether	U	500
75150	Carbon Disulfide	U	500	75252	Bromoform	U	500
75694	Trichlorofluoromethane	U	500	591786	2-Hexanone	U	500
75354	1,1-Dichloroethene	U	500	108101	4-Methyl-2-pentanone	U	500
75343	1,1-Dichloroethane	U	500	127184	Tetrachloroethene	U	500
156605	trans-1,2-Dichloroethene	U	500	79345	1,1,2,2-Tetrachloroethane	U	500
67663	Chloroform	U	500	108883	Toluene	630	500
107062	1,2-Dichloroethane	U	500	108907	Chlorobenzene	U	500
78933	2-Butanone	U	500	100414	Ethylbenzene	12000	500
71556	1,1,1-Trichloroethane	U	500	100425	Styrene	U	500
56235	Carbon Tetrachloride	U	500	1330207	m,p-Xylene	120000 E	1000
108054	Vinyl Acetate	U	500	95476	o-Xylene	48000 E	500
274	Bromodichloromethane	U	500	156592	cis-1,2-Dichloroethene	U	500

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	106 %	76-114	OK
Toluene-d8	96 %	88-110	OK
Bromofluorobenzene	128 %	86-115	OUT

J - Indicates compound concentration found below MDL.
 U - Indicates compound analyzed for but not detected,
 D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
 E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620616
FILE 187343
CLIENT NAME OHMRSC
FIELD ID BG03

MATRIX Liquid
DILUTION FACTOR 10000
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/11/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/L	MDL
83329	Acenaphthene	U	100
208968	Acenaphthylene	U	100
120127	Anthracene	U	100
56553	Benzo(a)Anthracene	U	100
50328	Benzo(a)Pyrene	U	100
205992	Benzo(b)fluoranthene	U	100
191242	Benzo(g,h,i)Perylene	U	100
207089	Benzo(k)Fluoranthene	U	100
65850	Benzoic Acid	U	500
100516	Benzyl Alcohol	U	100
111444	bis(-2-Chloroethyl)Ether	U	100
108601	bis(2-Chloroisopropyl)ether	U	100
117817	Bis(2-Ethylhexyl)Phthalate	U	100
111911	bis(-2-Chloroethoxy)Methane	U	100
101553	4-Bromophenyl-phenylether	U	100
85687	Butylbenzylphthalate	38 J	100
106478	4-Chloroaniline	U	100
91587	2-Chloronaphthalene	U	100
58507	4-Chloro-3-methylphenol	U	100
98	2-Chlorophenol	U	100
105723	4-Chlorophenyl-phenylether	U	100
218019	Chrysene	U	100
53703	Dibenzo(a,h)Anthracene	U	100
132649	Dibenzofuran	U	100
95501	1,2-Dichlorobenzene	U	100
541731	1,3-Dichlorobenzene	U	100
106467	1,4-Dichlorobenzene	U	100
91941	3,3'-Dichlorobenzidine	U	100
120832	2,4-Dichlorophenol	U	100
84662	Diethylphthalate	U	100
105679	2,4-Dimethylphenol	U	100
131113	Dimethyl Phthalate	U	100
84742	Di-n-Butylphthalate	U	100

CAS #	COMPOUND	mg/L	MDL
534521	4,6-Dinitro-2-methylphenol	U	100
51285	2,4-Dinitrophenol	U	100
121142	2,4-Dinitrotoluene	U	100
606202	2,6-Dinitrotoluene	U	100
117840	Di-n-octyl phthalate	U	100
206440	Fluoranthene	U	100
86737	Fluorene	U	100
118741	Hexachlorobenzene	U	100
87683	Hexachlorobutadiene	U	100
77474	Hexachlorocyclopentadiene	U	100
67721	Hexachloroethane	U	100
193395	Indeno(1,2,3-cd)Pyrene	U	100
78591	Isophorone	U	100
91576	2-Methylnaphthalene	360	100
95487	2-Methylphenol	U	100
108394	3&4-Methylphenol	U	100
91203	Naphthalene	280	100
88744	2-Nitroaniline	U	100
99092	3-Nitroaniline	U	100
100016	4-Nitroaniline	U	100
98953	Nitrobenzene	U	100
88755	2-Nitrophenol	U	100
100027	4-Nitrophenol	U	100
62759	N-Nitrosodimethylamine	U	100
86306	N-Nitrosodiphenylamine	U	100
621647	N-Nitroso-Di-n-propylamine	U	100
87865	Pentachlorophenol	U	100
85018	Phenanthrene	U	100
108952	Phenol	24 J	100
129000	Pyrene	U	100
120821	1,2,4-Trichlorobenzene	800 W	100
95954	2,4,5-Trichlorophenol	U	100
88062	2,4,6-Trichlorophenol	U	100

SURROGATE COMPOUNDS

Nitrobenzene-d5
2-Fluorobiphenyl
Terphenyl-d14
Phenol-d5
2-Fluorophenol
2,4,6-Tribromophenol

RECOVERY

62 %
76 %
204 %
70 %
62 %
57 %

LIMITS

35-114
43-116
33-141
10- 94
21-100
10-123

STATUS

OK
OK
OUT
OK
OK
OK

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Concentration exceeds highest calibration standard.
W - Result exceeds specific ground water quality criteria.*

Flags are based on Specific Ground Water Quality Criteria from New Jersey Register dated February 1, 1993.

* 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620616
DATA FILE >A8564
CLIENT NAME OHMRSC
FIELD ID BG03

MATRIX Liquid
DILUTION FACTOR 50
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

COMPOUND	UG/KG	MDL
2,4-D	U	545
SILVEX	U	54.5

Percent Solid of 91.7 is used for all target compounds.

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620616
Field ID: BG03
Client Name: ORSC

Matrix: Other
Date Received: 11/01/96

CAS No.	Element	Result MG/KG	MDL MG/KG	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	273	10.0	1	P	11/08/96
7440-36-0	Antimony	ND	1.00	1	P	11/08/96
7440-38-2	Arsenic	.606	.160	2	F	11/08/96
7440-39-3	Barium	103	.300	1	P	11/08/96
7440-41-7	Beryllium	ND	.050	1	P	11/08/96
7440-43-9	Cadmium	1.60	.100	1	P	11/08/96
7440-70-2	Calcium	383	10.0	1	P	11/08/96
7440-47-3	Chromium	4.17	.300	1	P	11/08/96
7440-48-4	Cobalt	1.95	.300	1	P	11/08/96
7440-50-8	Copper	54.1	.300	1	P	11/08/96
7439-89-6	Iron	2100	3.00	1	P	11/08/96
7439-92-1	Lead	383	3.00	1	P	11/08/96
7439-95-4	Magnesium	220	5.00	1	P	11/08/96
7439-96-5	Manganese	21.5	.150	1	P	11/08/96
7439-97-6	Mercury	ND	1.00	1	CV	11/12/96
7440-02-0	Nickel	4.30	.400	1	P	11/08/96
7440-09-7	Potassium	266	20.0	1	P	11/08/96
7782-49-2	Selenium	ND	.050	1	F	11/08/96
7440-22-4	Silver	.101	.100	1	P	11/08/96
7440-23-5	Sodium	391	10.0	1	P	11/08/96
7440-28-0	Thallium	ND	.100	1	F	11/11/96
7440-62-2	Vanadium	5.29	.500	1	P	11/08/96
7440-66-6	Zinc	531	1.00	1	P	11/08/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP
F - Analyzed by GFA

CV - Analyzed by Cold Vapor
A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
 REGULATED TCLP METALS
 INORGANIC ANALYSIS DATA SHEET

Case #: 1625
 Sample #: 9620616
 Field ID: BG03
 Client Name: ORSC

Matrix: Leachate
 Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	2.00	1	5.00	P	11/13/96
7440-39-3	Barium	1.40	.100	1	100.00	P	11/13/96
7440-43-9	Cadmium	ND	.060	1	1.00	P	11/13/96
7440-47-3	Chromium	ND	.060	1	5.00	P	11/13/96
7439-92-1	Lead	ND	.600	1	5.00	P	11/13/96
7439-97-6	Mercury	ND	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	1.00	1	1.00	P	11/13/96
7440-22-4	Silver	ND	.060	1	5.00	P	11/13/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP CV - Analyzed by Cold Vapor
 F - Analyzed by GFA A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

ASE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620616	DILUTION FACTOR	5000
DATA FILE	>C9710	DATE EXTRACTED	
CLIENT NAME	OHMRSC	DATE ANALYZED	11/13/96
FIELD ID	BG03	ANALYZED BY	DAVE

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	25.000	0.5
78933	2-Butanone	U	50.000	200.0
56235	Carbon Tetrachloride	U	25.000	0.5
108907	Chlorobenzene	U	25.000	100.0
67663	Chloroform	U	25.000	6.0
75354	1,1-Dichloroethene	U	25.000	0.7
107062	1,2-Dichloroethane	U	25.000	0.5
127184	Tetrachloroethene	U	25.000	0.7
79016	Trichloroethene	U	25.000	0.5
75014	Vinyl Chloride	U	50.000	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	107 %	76 - 114	OK
Toluene-d8	98 %	88 - 110	OK
Bromofluorobenzene	106 %	86 - 115	OK

(U) Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620616
 DATA FILE >F8747
 CLIENT NAME OHMRSC
 FIELD ID BG03

MATRIX Leachate
 DILUTION FACTOR 500
 DATE EXTRACTED 11/12/96
 DATE ANALYZED 11/14/96
 ANALYZED BY PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	5.00	5.0
106467	1,4-Dichlorobenzene	U	5.00	7.5
95478	2-Methylphenol	U	5.00	200.0
108394	3&4-Methylphenol	U	5.00	200.0
67721	Hexachloroethane	U	5.00	3.0
989103	Nitrobenzene	U	5.00	2.0
87683	Hexachlorobutadiene	U	5.00	0.5
88062	2,4,6-Trichlorophenol	U	5.00	2.0
9109104	2,4,5-Trichlorophenol	U	25.00	400.0
121142	2,4-Dinitrotoluene	U	5.00	0.13
118741	Hexachlorobenzene	U	5.00	0.13
878610	Pentachlorophenol	U	5.00	100.0

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
2-Fluorophenol	34 %	21 - 100	OK
Phenol-d5	166 %	10 - 94	OUT
Nitrobenzene-d5	115 %	35 - 114	OUT
2-Fluorobiphenyl	73 %	43 - 116	OK
2,4,6-Tribromophenol	38 %	10 - 123	OK
Terphenyl-d14	60 %	33 - 141	OK

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
 * 3-Methylphenol = m-cresol
 * 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620616
DATA FILE >A8545
CLIENT NAME OHMRSC
FIELD ID BG03

MATRIX
DILUTION FACTOR 1
DATE EXTRACTED 11/11/96
DATE ANALYZED 11/12/96
ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620617
Client Name: ORSC
Field Number: BG04

Matrix: Aqueous
Date Received: 11/01/96

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Cyanide, Total	ND	0.01	mg/L	1.	ND	0.01	11/12/96
Flash Point	>200	80.	°F	1.			11/14/96
PH	10.00		S.U.	1.			11/14/96
Phenols, Total	13.0	1.0	mg/L	1.	ND	0.05	11/14/96
Cyanide, Reactive	ND	0.20	mg/L	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	40.0	mg/L	1.	ND	40.0	11/12/96
Sulfide	ND	0.20	mg/L	1.	ND	0.20	11/12/96
Solids, Total	114000.	2.0	mg/L	1.	ND	2.0	11/18/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620617DL 5
DATA FILE >G6079
CLIENT NAME OHMRSC
FIELD ID BG04

MATRIX Liquid
DILUTION FACTOR 50
DATE EXTRACTED 11/04/96
DATE ANALYZED 11/07/96
ANALYZED BY MARK

CAS#	COMPOUND	UG/L	MDL
319846	A-BHC	U	1.00
319857	B-BHC	U	1.00
58899	G-BHC (Lindane)	U	1.00
319868	D-BHC	U	1.00
76448	Heptachlor	U	1.00
309002	Aldrin	U	1.00
1024573	Heptachlor Epoxide	U	1.00
959988	Endosulfan I	U	1.00
5103719	A-Chlordane	U	1.00
5103742	G-Chlordane	U	1.00
60571	Dieldrin	U	1.00
72559	4,4'-DDE	U	1.00
72208	Endrin	U	1.00
33213659	Endosulfan II	U	2.00
72548	4,4'-DDD	U	2.00
7421934	Endrin Aldehyde	U	2.00
1031078	Endosulfan Sulfate	U	2.00
50293	4,4'-DDT	U	2.00
53494705	Endrin Ketone	U	2.00
72435	Methoxychlor	U	10.0
8001352	Toxaphene	U	50.0
12674112	Aroclor-1016	U	25.0
11104282	Aroclor-1221	U	25.0
11141165	Aroclor-1232	U	25.0
53469219	Aroclor-1242	U	25.0
12672296	Aroclor-1248	U	25.0
11097691	Aroclor-1254	U	25.0
11096825	Aroclor-1260	1860 D	25.0

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620617
DATA FILE >G6063
CLIENT NAME OHNRSC
FIELD ID BG04

MATRIX Liquid
DILUTION FACTOR 10
DATE EXTRACTED 11/05/96
DATE ANALYZED 11/06/96
ANALYZED BY MARK

CAS#	COMPOUND	UG/L	MDL
319846	A-BHC	U	.200
319857	B-BHC	U	.200
58899	G-BHC (Lindane)	U	.200
319868	D-BHC	U	.200
76448	Heptachlor	U	.200
309002	Aldrin	U	.200
1024573	Heptachlor Epoxide	U	.200
959988	Endosulfan I	U	.200
5103719	A-Chlordane	U	.200
5103742	G-Chlordane	U	.200
60571	Dieldrin	U	.200
72559	4,4'-DDE	U	.200
72208	Endrin	U	.200
33213659	Endosulfan II	U	.400
72548	4,4'-DDD	U	.400
7421934	Endrin Aldehyde	U	.400
1031078	Endosulfan Sulfate	U	.400
50293	4,4'-DDT	U	.400
53494705	Endrin Ketone	U	.400
72435	Methoxychlor	U	2.00
8001352	Toxaphene	U	10.0
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	1670 E	5.00

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

USE NUMBER 1625
SAMPLE NUMBER 9620617DL
DATA FILE >C9703
CLIENT NAME OHMRSC
FIELD ID BGD4

MATRIX Liquid
DILUTION FACTOR 100
DATE EXTRACTED
DATE ANALYZED 11/13/96
ANALYZED BY DAVE

CAS #	COMPOUND	UG/KG	MDL	CAS #	COMPOUND	UG/KG	MDL
107028	Acrolein	U	5000	78875	1,2-Dichloropropane	U	500
107131	Acrylonitrile	U	5000	10061015	cis-1,3-Dichloropropene	U	500
74873	Chloromethane	U	500	79016	Trichloroethene	U	500
74839	Bromomethane	U	500	71432	Benzene	U	500
75014	Vinyl Chloride	U	500	124481	Dibromochloromethane	U	500
75003	Chloroethane	U	500	79005	1,1,2-Trichloroethane	U	500
75092	Methylene Chloride	250 J D	500	10061026	trans-1,3-Dichloropropene	U	500
67641	Acetone	4200 D	500	110758	2-Chloroethylvinylether	U	500
75150	Carbon Disulfide	U	500	75252	Bromoform	U	500
75694	Trichlorofluoromethane	U	500	591786	2-Hexanone	U	500
75354	1,1-Dichloroethene	U	500	108101	4-Methyl-2-pentanone	150 J D	500
75343	1,1-Dichloroethane	U	500	127184	Tetrachloroethene	U	500
156605	trans-1,2-Dichloroethene	U	500	79345	1,1,2,2-Tetrachloroethane	U	500
67663	Chloroform	U	500	108883	Toluene	570 D	500
107062	1,2-Dichloroethane	U	500	108907	Chlorobenzene	U	500
78933	2-Butanone	U	500	100414	Ethylbenzene	120 J D	500
71556	1,1,1-Trichloroethane	U	500	100425	Styrene	U	500
56235	Carbon Tetrachloride	U	500	1330207	m,p-Xylene	730 J D	1000
108054	Vinyl Acetate	U	500	95476	o-Xylene	600 D	500
5274	Bromodichloromethane	U	500	156592	cis-1,2-Dichloroethene	U	500

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	113 %	70-121	OK
Toluene-d8	104 %	81-117	OK
Bromofluorobenzene	117 %	74-121	OK

Percent solid of 100 is used for all target compounds.

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected,
D - Indicates result is based on a dilution.
I - Result exceeds industrial surface soil standards.*

B - Indicates compound found in associated blank.
E - Indicates result exceeds highest calibration standard
R - Result exceeds residential surface soil standards.*

* Flags are based on New Jersey Soil Cleanup Criteria from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620617
DATA FILE >C9726
CLIENT NAME OHMRSC
FIELD ID BG04

MATRIX Liquid
DILUTION FACTOR 10
DATE EXTRACTED
DATE ANALYZED 11/14/96
ANALYZED BY DANIEL

CAS #	COMPOUND	UG/KG	MDL	CAS #	COMPOUND	UG/KG	MDL
107028	Acrolein	U	500	78875	1,2-Dichloropropane	U	50
107131	Acrylonitrile	U	500	10061015	cis-1,3-Dichloropropene	U	50
74873	Chloromethane	U	50	79016	Trichloroethene	U	50
74839	Bromomethane	U	50	71432	Benzene	24 J	50
75014	Vinyl Chloride	U	50	124481	Dibromochloromethane	U	50
75003	Chloroethane	U	50	79005	1,1,2-Trichloroethane	U	50
75092	Methylene Chloride	76 B	50	10061026	trans-1,3-Dichloropropene	U	50
67641	Acetone	2800 E	50	110758	2-Chloroethylvinylether	U	50
75150	Carbon Disulfide	U	50	75252	Bromoform	U	50
75694	Trichlorofluoromethane	U	50	591786	2-Hexanone	U	50
75354	1,1-Dichloroethene	U	50	108101	4-Methyl-2-pentanone	120	50
75343	1,1-Dichloroethane	U	50	127184	Tetrachloroethene	U	50
156605	trans-1,2-Dichloroethene	U	50	79345	1,1,2,2-Tetrachloroethane	U	50
67663	Chloroform	U	50	108883	Toluene	430	50
107062	1,2-Dichloroethane	U	50	108907	Chlorobenzene	U	50
78933	2-Butanone	520	50	100414	Ethylbenzene	110	50
71556	1,1,1-Trichloroethane	190	50	100425	Styrene	U	50
56235	Carbon Tetrachloride	U	50	1330207	m,p-Xylene	680	100
108054	Vinyl Acetate	U	50	95476	o-Xylene	360	50
5274	Bromodichloromethane	U	50	156592	cis-1,2-Dichloroethene	U	50

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	104 %	70-121	OK
Toluene-d8	98 %	81-117	OK
Bromofluorobenzene	128 %	74-121	OUT

Percent solid of 100 is used for all target compounds.

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected,
D - Indicates result is based on a dilution.
I - Result exceeds industrial surface soil standards.*

B - Indicates compound found in associated blank.
E - Indicates result exceeds highest calibration standard
R - Result exceeds residential surface soil standards.*

* Flags are based on New Jersey Soil Cleanup Criteria from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620617
FILE >B7344
CLIENT NAME OHMRSC
FIELD ID BG04

MATRIX Liquid
DILUTION FACTOR 10
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/11/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/L	MDL
83329	Acenaphthene	.03 J	.10
208968	Acenaphthylene	U	.10
120127	Anthracene	U	.10
56553	Benzo(a)Anthracene	U	.10
50328	Benzo(a)Pyrene	U	.10
205992	Benzo(b)fluoranthene	U	.10
191242	Benzo(g,h,i)Perylene	U	.10
207089	Benzo(k)Fluoranthene	U	.10
65850	Benzoic Acid	U	.50
100516	Benzyl Alcohol	U	.10
111444	bis(-2-Chloroethyl)Ether	U	.10
108601	bis(2-Chloroisopropyl)ether	U	.10
117817	Bis(2-Ethylhexyl)Phthalate	.07 J	.10
111911	bis(-2-Chloroethoxy)Methane	U	.10
101553	4-Bromophenyl-phenylether	U	.10
85687	Butylbenzylphthalate	U	.10
106478	4-Chloroaniline	U	.10
91587	2-Chloronaphthalene	U	.10
59507	4-Chloro-3-methylphenol	U	.10
723	2-Chlorophenol	U	.10
218019	4-Chlorophenyl-phenylether	U	.10
53703	Chrysene	U	.10
132649	Dibenzo(a,h)Anthracene	U	.10
95501	Dibenzofuran	U	.10
541731	1,2-Dichlorobenzene	U	.10
106467	1,3-Dichlorobenzene	U	.10
91941	1,4-Dichlorobenzene	U	.10
120832	3,3'-Dichlorobenzidine	U	.10
84662	2,4-Dichlorophenol	U	.10
105679	Diethylphthalate	U	.10
131113	2,4-Dimethylphenol	U	.10
84742	Dimethyl Phthalate	U	.10
	Di-n-Butylphthalate	U	.10

CAS #	COMPOUND	mg/L	MDL
534521	4,6-Dinitro-2-methylphenol	U	.10
51285	2,4-Dinitrophenol	U	.10
121142	2,4-Dinitrotoluene	U	.10
606202	2,6-Dinitrotoluene	U	.10
117840	Di-n-octyl phthalate	U	.10
206440	Fluoranthene	U	.10
86737	Fluorene	U	.10
118741	Hexachlorobenzene	U	.10
87683	Hexachlorobutadiene	U	.10
77474	Hexachlorocyclopentadiene	U	.10
67721	Hexachloroethane	U	.10
193395	Indeno(1,2,3-cd)Pyrene	U	.10
78591	Isophorone	U	.10
91576	2-Methylnaphthalene	.18	.10
95487	2-Methylphenol	U	.10
108394	3,4-Methylphenol	U	.10
91203	Naphthalene	U	.10
88744	2-Nitroaniline	U	.10
99092	3-Nitroaniline	U	.10
100016	4-Nitroaniline	U	.10
98953	Nitrobenzene	U	.10
88755	2-Nitrophenol	U	.10
100027	4-Nitrophenol	U	.10
62759	N-Nitrosodimethylamine	U	.10
86306	N-Nitrosodiphenylamine	U	.10
621647	N-Nitroso-Di-n-propylamine	U	.10
87865	Pentachlorophenol	U	.10
85018	Phenanthrene	U	.10
108952	Phenol	.15	.10
129000	Pyrene	U	.10
120821	1,2,4-Trichlorobenzene	.18	.10
95954	2,4,5-Trichlorophenol	U	.10
88062	2,4,6-Trichlorophenol	U	.10

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
Nitrobenzene-d5	83 %	35-114	OK
2-Fluorobiphenyl	100 %	43-116	OK
Terphenyl-d14	54 %	33-141	OK
Phenol-d5	89 %	10- 94	OK
2-Fluorophenol	66 %	21-100	OK
2,4,6-Tribromophenol	62 %	10-123	OK

J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
E - Concentration exceeds highest calibration standard.
W - Result exceeds specific ground water quality criteria.*

*Flags are based on Specific Ground Water Quality Criteria from New Jersey Register dated February 1, 1993.
* 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620617
DATA FILE >A8546
CLIENT NAME OHMRSC
FIELD ID BG04

MATRIX Liquid
DILUTION FACTOR 200
DATE EXTRACTED 11/06/96
DATE ANALYZED 11/12/96
ANALYZED BY MARK

COMPOUND	UG/L	MDL
2,4-D	U	20.0
SILVEX	U	2.00

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620617
Field ID: BG04
Client Name: ORSC

Matrix: Other
Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	ND	2.00	1	P	11/08/96
7440-36-0	Antimony	ND	.200	1	P	11/08/96
7440-38-2	Arsenic	ND	.016	1	F	11/08/96
7440-39-3	Barium	.516	.060	1	P	11/08/96
7440-41-7	Beryllium	ND	.010	1	P	11/08/96
7440-43-9	Cadmium	ND	.020	1	P	11/08/96
7440-70-2	Calcium	15.4	2.00	1	P	11/08/96
7440-47-3	Chromium	ND	.060	1	P	11/08/96
7440-48-4	Cobalt	ND	.060	1	P	11/08/96
7440-50-8	Copper	.100	.060	1	P	11/08/96
7439-89-6	Iron	30.6	.600	1	P	11/08/96
7439-92-1	Lead	1.37	.600	1	P	11/08/96
7439-95-4	Magnesium	8.40	1.00	1	P	11/08/96
7439-96-5	Manganese	.766	.030	1	P	11/08/96
7439-97-6	Mercury	1.28	1.00	1	CV	11/11/96
7440-02-0	Nickel	ND	.080	1	P	11/08/96
7440-09-7	Potassium	276	4.00	1	P	11/08/96
7782-49-2	Selenium	ND	.010	1	F	11/08/96
7440-22-4	Silver	ND	.020	1	P	11/08/96
7440-23-5	Sodium	2160	2.00	10	P	11/12/96
7440-28-0	Thallium	ND	.020	1	F	11/11/96
7440-62-2	Vanadium	ND	.100	1	P	11/08/96
7440-66-6	Zinc	4.36	.200	1	P	11/08/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP
F - Analyzed by GFA
CV - Analyzed by Cold Vapor
A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
REGULATED TCLP METALS
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620617
Field ID: BG04
Client Name: ORSC

Matrix: Leachate
Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	2.00	1	5.00	P	11/13/96
7440-39-3	Barium	.634	.100	1	100.00	P	11/13/96
7440-43-9	Cadmium	ND	.060	1	1.00	P	11/13/96
7440-47-3	Chromium	ND	.060	1	5.00	P	11/13/96
7439-92-1	Lead	1.12	.600	1	5.00	P	11/13/96
7439-97-6	Mercury	ND	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	1.00	1	1.00	P	11/13/96
7440-22-4	Silver	ND	.060	1	5.00	P	11/13/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

CASE NUMBER	<u>1625</u>	MATRIX	<u>Leachate</u>
SAMPLE NUMBER	<u>9620617</u>	DILUTION FACTOR	<u>10</u>
DATA FILE	<u>>C9726</u>	DATE EXTRACTED	
CLIENT NAME	<u>OHMRSC</u>	DATE ANALYZED	<u>11/14/96</u>
FIELD ID	<u>BG04</u>	ANALYZED BY	<u>DANIEL</u>

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.050	0.5
78933	2-Butanone	.520	.100	200.0
56235	Carbon Tetrachloride	U	.050	0.5
108907	Chlorobenzene	U	.050	100.0
67663	Chloroform	U	.050	6.0
75354	1,1-Dichloroethene	U	.050	0.7
107062	1,2-Dichloroethane	U	.050	0.5
127184	Tetrachloroethene	U	.050	0.7
79016	Trichloroethene	U	.050	0.5
75014	Vinyl Chloride	U	.100	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	104 %	76 - 114	OK
Toluene-d8	98 %	88 - 110	OK
Bromofluorobenzene	128 %	86 - 115	OUT

(U) Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620617DL
DATA FILE >C9703
CLIENT NAME OHMRSC
FIELD ID BG04

MATRIX
DILUTION FACTOR 100
DATE EXTRACTED
DATE ANALYZED 11/13/96
ANALYZED BY DAVE

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.500	0.5
78933	2-Butanone	U	1.000	200.0
56235	Carbon Tetrachloride	U	.500	0.5
108907	Chlorobenzene	U	.500	100.0
67663	Chloroform	U	.500	6.0
75354	1,1-Dichloroethene	U	.500	0.7
107062	1,2-Dichloroethane	U	.500	0.5
127184	Tetrachloroethene	U	.500	0.7
79016	Trichloroethene	U	.500	0.5
75014	Vinyl Chloride	U	1.000	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	113 %	76 - 114	OK
Toluene-d8	104 %	88 - 110	OK
Bromofluorobenzene	117 %	86 - 115	OUT

(U) Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

CASE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620617	DILUTION FACTOR	10
DATA FILE	>B7344	DATE EXTRACTED	11/07/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/11/96
FIELD ID	BG04	ANALYZED BY	PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	.10	5.0
106467	1,4-Dichlorobenzene	U	.10	7.5
95478	2-Methylphenol	U	.10	200.0
108394	3&4-Methylphenol	U	.10	200.0
67721	Hexachloroethane	U	.10	3.0
989103	Nitrobenzene	U	.10	2.0
87683	Hexachlorobutadiene	U	.10	0.5
88062	2,4,6-Trichlorophenol	U	.10	2.0
9109104	2,4,5-Trichlorophenol	U	.50	400.0
121142	2,4-Dinitrotoluene	U	.10	0.13
118741	Hexachlorobenzene	U	.10	0.13
878610	Pentachlorophenol	U	.10	100.0

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
2-Fluorophenol	66 %	21 - 100	OK
Phenol-d5	89 %	10 - 94	OK
Nitrobenzene-d5	83 %	35 - 114	OK
2-Fluorobiphenyl	100 %	43 - 116	OK
2,4,6-Tribromophenol	62 %	10 - 123	OK
Terphenyl-d14	54 %	33 - 141	OK

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
 * 3-Methylphenol = m-cresol
 * 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC.
TCLP PESTICIDES ANALYSIS DATA

ASE NUMBER 1625
SAMPLE NUMBER 9620617
DATA FILE >G6138
CLIENT NAME OHMRSC
FIELD ID BG04

MATRIX Leachate
DILUTION FACTOR 50
DATE EXTRACTED 11/11/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
58899	G-BHC (Lindane)	U	.002	0.400
76448	Heptachlor	U	.002	0.008
1024573	Heptachlor Epoxide	U	.002	0.008
72208	Endrin	U	.005	0.02
72435	Methoxychlor	U	.025	10.0
5103719	A-Chlordane	U	.002	0.03
5103742	G-Chlordane	U	.002	0.03
8001352	Toxaphene	U	.050	0.5

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>ADVISORY LIMITS</u>	<u>STATUS</u>
DCB	3%	30 - 150	OUT
Tetrachloro-m-xylene	56%	30 - 150	OK

- U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

SE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620617	DILUTION FACTOR	1
DATA FILE	>A8546	DATE EXTRACTED	11/11/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/12/96
FIELD ID	BG04	ANALYZED BY	MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620618
Client Name: ORSC
Field Number: 8G05

Matrix: Aqueous
Date Received: 11/01/96

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Cyanide, Total	0.04	0.01	mg/L	1.	ND	0.01	11/12/96
Flash Point	>200	80.	°F	1.			11/14/96
PH	10.00		S.U.	1.			11/14/96
Phenols, Total	10.9	1.0	mg/L	1.	ND	0.05	11/14/96
Cyanide, Reactive	ND	0.20	mg/L	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	40.0	mg/L	1.	ND	40.0	11/12/96
Sulfide	ND	0.20	mg/L	1.	ND	0.20	11/12/96
Solids, Total	200000.	2.0	mg/L	1.	ND	2.0	11/18/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620618
DATA FILE >G6064
CLIENT NAME OHMRSC
FIELD ID BG05

MATRIX Liquid
DILUTION FACTOR 100
DATE EXTRACTED 11/05/96
DATE ANALYZED 11/06/96
ANALYZED BY MARK

CAS#	COMPOUND	UG/L	MDL
319846	A-BHC	U	2.00
319857	B-BHC	U	2.00
58899	G-BHC (Lindane)	U	2.00
319868	D-BHC	U	2.00
76448	Heptachlor	U	2.00
309002	Aldrin	U	2.00
1024573	Heptachlor Epoxide	U	2.00
959988	Endosulfan I	U	2.00
5103719	A-Chlordane	U	2.00
5103742	G-Chlordane	U	2.00
60571	Dieldrin	U	2.00
72559	4,4'-DDE	U	2.00
72208	Endrin	U	2.00
33213659	Endosulfan II	U	4.00
72548	4,4'-DDD	U	4.00
7421934	Endrin Aldehyde	3.84 J	4.00
1031078	Endosulfan Sulfate	U	4.00
50293	4,4'-DDT	U	4.00
53494705	Endrin Ketone	U	4.00
72435	Methoxychlor	U	20.0
8001352	Toxaphene	U	100
12674112	Aroclor-1016	U	50.0
11104282	Aroclor-1221	U	50.0
11141165	Aroclor-1232	U	50.0
53469219	Aroclor-1242	U	50.0
12672296	Aroclor-1248	U	50.0
11097691	Aroclor-1254	U	50.0
11096825	Aroclor-1260	U	50.0

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620618
DATA FILE >A8547
CLIENT NAME DHMRSC
FIELD ID BG05

MATRIX Liquid
DILUTION FACTOR 200
DATE EXTRACTED 11/06/96
DATE ANALYZED 11/12/96
ANALYZED BY MARK

COMPOUND	UG/L	MDL
2,4-D	U	20.0
SILVEX	U	2.00

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620618
Field ID: BG05
Client Name: ORSC

Matrix: Other
Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	8.55	5.00	1	P	11/08/96
7440-36-0	Antimony	ND	.500	1	P	11/08/96
7440-38-2	Arsenic	ND	.040	1	F	11/08/96
7440-39-3	Barium	ND	.150	1	P	11/08/96
7440-41-7	Beryllium	ND	.025	1	P	11/08/96
7440-43-9	Cadmium	ND	.050	1	P	11/08/96
7440-70-2	Calcium	19.4	5.00	1	P	11/08/96
7440-47-3	Chromium	ND	.150	1	P	11/08/96
7440-48-4	Cobalt	ND	.150	1	P	11/08/96
7440-50-8	Copper	.282	.150	1	P	11/08/96
7439-89-6	Iron	2.28	1.50	1	P	11/08/96
7439-92-1	Lead	ND	1.50	1	P	11/08/96
7439-95-4	Magnesium	4.15	2.50	1	P	11/08/96
7439-96-5	Manganese	ND	.075	1	P	11/08/96
7439-97-6	Mercury	1.05	1.00	1	CV	11/11/96
7440-02-0	Nickel	ND	.200	1	P	11/08/96
7440-09-7	Potassium	23.3	10.0	1	P	11/08/96
7782-49-2	Selenium	ND	.025	1	F	11/08/96
7440-22-4	Silver	ND	.050	1	P	11/08/96
7440-23-5	Sodium	3940	5.00	20	P	11/12/96
7440-28-0	Thallium	ND	.050	1	F	11/11/96
7440-62-2	Vanadium	ND	.250	1	P	11/08/96
7440-66-6	Zinc	.990	.500	1	P	11/08/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
 REGULATED TCLP METALS
 INORGANIC ANALYSIS DATA SHEET

Case #: 1625
 Sample #: 9620618
 Field ID: BG05
 Client Name: ORSC

Matrix: Leachate
 Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	5.00	1	5.00	P	11/14/96
7440-39-3	Barium	ND	.250	1	100.00	P	11/14/96
7440-43-9	Cadmium	ND	.150	1	1.00	P	11/14/96
7440-47-3	Chromium	ND	.150	1	5.00	P	11/14/96
7439-92-1	Lead	ND	1.50	1	5.00	P	11/14/96
7439-97-6	Mercury	ND	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	2.50	1	1.00	P	11/14/96
7440-22-4	Silver	ND	.150	1	5.00	P	11/14/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

CASE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620618	DILUTION FACTOR	200
DATA FILE	>B7357	DATE EXTRACTED	11/06/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/12/96
FIELD ID	BG05	ANALYZED BY	PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	2.00	5.0
106467	1,4-Dichlorobenzene	U	2.00	7.5
95478	2-Methylphenol	U	2.00	200.0
108394	3&4-Methylphenol	U	2.00	200.0
67721	Hexachloroethane	U	2.00	3.0
989103	Nitrobenzene	U	2.00	2.0
87683	Hexachlorobutadiene	U	2.00	0.5
88062	2,4,6-Trichlorophenol	U	2.00	2.0
9109104	2,4,5-Trichlorophenol	U	10.00	400.0
121142	2,4-Dinitrotoluene	U	2.00	0.13
118741	Hexachlorobenzene	U	2.00	0.13
878610	Pentachlorophenol	U	2.00	100.0

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
2-Fluorophenol	68 %	21 - 100	OK
Phenol-d5	116 %	10 - 94	OUT
Nitrobenzene-d5	89 %	35 - 114	OK
2-Fluorobiphenyl	109 %	43 - 116	OK
2,4,6-Tribromophenol	73 %	10 - 123	OK
Terphenyl-d14	320 %	33 - 141	OUT

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
* 3-Methylphenol = m-cresol
* 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC.
TCLP PESTICIDES ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620618
DATA FILE >G6139
CLIENT NAME OHMRSC
FIELD ID BG05

MATRIX Leachate
DILUTION FACTOR 250
DATE EXTRACTED 11/11/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
58899	G-BHC (Lindane)	U	.012	0.400
76448	Heptachlor	U	.012	0.008
1024573	Heptachlor Epoxide	U	.012	0.008
72208	Endrin	U	.025	0.02
72435	Methoxychlor	U	.125	10.0
5103719	A-Chlordane	U	.012	0.03
5103742	G-Chlordane	U	.012	0.03
8001352	Toxaphene	U	.250	0.5

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>ADVISORY LIMITS</u>	<u>STATUS</u>
DCB	<u>115%</u>	30 - 150	OK
Tetrachloro-m-xylene	<u>94%</u>	30 - 150	OK

U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620618
DATA FILE >A8547
CLIENT NAME OHMRSC
FIELD ID BG05

MATRIX
DILUTION FACTOR 1
DATE EXTRACTED 11/11/96
DATE ANALYZED 11/12/96
ANALYZED BY MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

ACCREDITED LABORATORIES, INC.
GENERAL CHEMISTRY ANALYSIS DATA

Case #: 1625
Sample #: 9620619
Client Name: ORSC
Field Number: 8G06

Matrix: Solid
Date Received: 11/01/96
% Moisture: 9.3

ANALYTES	RESULTS	MDL	UNITS	DILUTION FACTOR	METHOD BLANK		ANALYSIS DATE
					RESULTS	MDL	
Solids, Percent	90.7	.1	%	1.			11/11/96
Ash, Percent	9.7	0.01	%	1.	ND	0.01	11/14/96
BTU	14583.	100.	BTU/lb	1.	ND	100.	11/14/96
Cyanide, Total	ND	0.11	mg/Kg	1.	ND	0.25	11/12/96
Flash Point	>200	80.	°F	1.			11/14/96
Paint Filter Test	NO FREE LIQUID PRESENT						11/14/96
PH	9.21		S.U.	1.			11/14/96
Cyanide, Reactive	ND	0.22	mg/Kg	1.	ND	0.20	11/12/96
Sulfide, Reactive	ND	44.1	mg/Kg	1.	ND	40.0	11/12/96
TOTAL SULFUR	ND	0.10	%	1.	ND	0.10	11/14/96
Total Organic Halogen	5192.	11.	mg/Kg	1.	ND	10.	11/13/96

ACCREDITED LABORATORIES, INC
PESTICIDE/PCB ORGANIC ANALYSIS DATA

CASE NUMBER	1625	MATRIX	Solid
SAMPLE NUMBER	9620619	DILUTION FACTOR	10
DATA FILE	>G6071	DATE EXTRACTED	11/06/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/07/96
FIELD ID	BG06	ANALYZED BY	MARK

CAS#	COMPOUND	MG/KG	MDL
319846	A-BHC	U	.007
319857	B-BHC	U	.007
58899	G-BHC (Lindane)	U	.007
319868	D-BHC	U	.007
76448	Heptachlor	U	.007
309002	Aldrin	U	.007
1024573	Heptachlor Epoxide	U	.007
959988	Endosulfan I	U	.007
5103719	A-Chlordane	U	.007
5103742	G-Chlordane	U	.007
60571	Dieldrin	U	.007
72559	4,4'-DDE	U	.007
72208	Endrin	U	.007
33213659	Endosulfan II	U	.015
72548	4,4'-DDD	U	.015
7421934	Endrin Aldehyde	U	.015
1031078	Endosulfan Sulfate	U	.015
50293	4,4'-DDT	U	.015
53494705	Endrin Ketone	U	.015
72435	Methoxychlor	U	.074
8001352	Toxaphene	U	.368
12674112	Aroclor-1016	U	.184
11104282	Aroclor-1221	U	.184
11141165	Aroclor-1232	U	.184
53469219	Aroclor-1242	U	.184
12672296	Aroclor-1248	U	.184
11097691	Aroclor-1254	U	.184
11096825	Aroclor-1260	U	.184

Percent Solid of 90.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
VOLATILE ORGANIC ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620619
 DATA FILE >C9705
 CLIENT NAME OHMRSC
 FIELD ID BG06

MATRIX Solid
 DILUTION FACTOR 100
 DATE EXTRACTED
 DATE ANALYZED 11/13/96
 ANALYZED BY DAVE

CAS #	COMPOUND	UG/KG	MDL	CAS #	COMPOUND	UG/KG	MDL
107028	Acrolein	U	5500	78875	1,2-Dichloropropane	U	550
107131	Acrylonitrile	U	5500	10061015	cis-1,3-Dichloropropene	U	550
74873	Chloromethane	U	550	79016	Trichloroethene	U	550
74839	Bromomethane	U	550	71432	Benzene	U	550
75014	Vinyl Chloride	U	550	124481	Dibromochloromethane	U	550
75003	Chloroethane	U	550	79005	1,1,2-Trichloroethane	U	550
75092	Methylene Chloride	U	550	10061026	trans-1,3-Dichloropropene	U	550
67641	Acetone	U	550	110758	2-Chloroethylvinylether	U	550
75150	Carbon Disulfide	U	550	75252	Bromoform	U	550
75694	Trichlorofluoromethane	U	550	591786	2-Hexanone	U	550
75354	1,1-Dichloroethene	U	550	108101	4-Methyl-2-pentanone	U	550
75343	1,1-Dichloroethane	U	550	127184	Tetrachloroethene	U	550
156605	trans-1,2-Dichloroethene	U	550	79345	1,1,2,2-Tetrachloroethane	U	550
67663	Chloroform	U	550	108883	Toluene	770	550
107062	1,2-Dichloroethane	U	550	108907	Chlorobenzene	U	550
78933	2-Butanone	U	550	100414	Ethylbenzene	460 J	550
71556	1,1,1-Trichloroethane	U	550	100425	Styrene	13000	550
56235	Carbon Tetrachloride	U	550	1330207	m,p-Xylene	2100	1100
108054	Vinyl Acetate	U	550	95476	o-Xylene	1100	550
6274	Bromodichloromethane	U	550	156592	cis-1,2-Dichloroethene	U	550

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	109 %	70-121	OK
Toluene-d8	101 %	81-117	OK
Bromofluorobenzene	116 %	74-121	OK

Percent solid of 90.7 is used for all target compounds.

J - Indicates compound concentration found below MDL.
 U - Indicates compound analyzed for but not detected,
 D - Indicates result is based on a dilution.

B - Indicates compound found in associated blank.
 E - Indicates result exceeds highest calibration standard

ACCREDITED LABORATORIES, INC.
BNA ORGANIC ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620619
FILE 187340
CLIENT NAME OHMRSC
FIELD ID BG06

MATRIX Solid
DILUTION FACTOR 50
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/11/96
ANALYZED BY PAUL

CAS #	COMPOUND	mg/Kg	MDL	CAS #	COMPOUND	mg/Kg	MDL
83329	Acenaphthene	U	18	534521	4,6-Dinitro-2-methylphenol	U	18
208968	Acenaphthylene	U	18	51285	2,4-Dinitrophenol	U	18
120127	Anthracene	U	18	121142	2,4-Dinitrotoluene	U	18
56553	Benzo(a)Anthracene	U	18	606202	2,6-Dinitrotoluene	U	18
50328	Benzo(a)Pyrene	U	18	117840	Di-n-octyl phthalate	U	18
205992	Benzo(b)fluoranthene	U	18	206440	Fluoranthene	U	18
191242	Benzo(g,h,i)Perylene	U	18	86737	Fluorene	1.9 J	18
207089	Benzo(k)Fluoranthene	U	18	118741	Hexachlorobenzene	U	18
65850	Benzoic Acid	U	92	87683	Hexachlorobutadiene	U	18
100516	Benzyl Alcohol	U	18	77474	Hexachlorocyclopentadiene	U	18
111444	bis(-2-Chloroethyl)Ether	U	18	67721	Hexachloroethane	U	18
108601	bis(2-Chloroisopropyl)ether	U	18	193395	Indeno(1,2,3-cd)Pyrene	U	18
117817	Bis(2-Ethylhexyl)Phthalate	U	18	78591	Isophorone	U	18
111911	bis(-2-Chloroethoxy)Methane	U	18	91576	2-Methylnaphthalene	8.6 J	18
101553	4-Bromophenyl-phenylether	U	18	95487	2-Methylphenol	U	18
85687	Butylbenzylphthalate	U	18	108394	3,4-Methylphenol	U	18
106478	4-Chloroaniline	U	18	91203	Naphthalene	3.2 J	18
91587	2-Chloronaphthalene	U	18	88744	2-Nitroaniline	U	18
58507	4-Chloro-3-methylphenol	U	18	99092	3-Nitroaniline	U	18
55723	2-Chlorophenol	U	18	100016	4-Nitroaniline	U	18
218019	4-Chlorophenyl-phenylether	U	18	98953	Nitrobenzene	U	18
53703	Chrysene	U	18	88755	2-Nitrophenol	U	18
132649	Dibenzo(a,h)Anthracene	U	18	100027	4-Nitrophenol	U	18
95501	Dibenzofuran	U	18	62759	N-Nitrosodimethylamine	U	18
541731	1,2-Dichlorobenzene	U	18	86306	N-Nitrosodiphenylamine	U	18
106467	1,3-Dichlorobenzene	U	18	621647	N-Nitroso-Di-n-propylamine	U	18
91941	1,4-Dichlorobenzene	U	18	87865	Pentachlorophenol	U	18
120832	3,3'-Dichlorobenzidine	U	18	85018	Phenanthrene	8.1 J	18
84662	2,4-Dichlorophenol	U	18	108952	Phenol	U	18
105679	Diethylphthalate	U	18	129000	Pyrene	U	18
131113	2,4-Dimethylphenol	U	18	120821	1,2,4-Trichlorobenzene	U	18
84742	Dimethyl Phthalate	U	18	95954	2,4,5-Trichlorophenol	U	18
	Di-n-Butylphthalate	U	18	88062	2,4,6-Trichlorophenol	U	18

SURROGATE COMPOUNDS	RECOVERY	LIMITS	STATUS
Nitrobenzene-d5	72 %	23-120	OK
2-Fluorobiphenyl	99 %	30-115	OK
Terphenyl-d14	153 %	18-137	OUT
Phenol-d5	75 %	24-113	OK
2-Fluorophenol	63 %	25-121	OK
2,4,6-Tribromophenol	58 %	19-122	OK

Percent solid of 90.7 is used for all target compounds.

Indicates compound concentration found below MDL.

B - Indicates compound found in associated blank.

Indicates compound analyzed for but not detected.

E - Concentration exceeds highest calibration standard.

Indicates result is based on a dilution.

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied

ACCREDITED LABORATORIES, INC
HERBICIDE ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620619
DATA FILE >A8565
CLIENT NAME OHMRSC
FIELD ID BG06

MATRIX Solid
DILUTION FACTOR 10
DATE EXTRACTED 11/07/96
DATE ANALYZED 11/13/96
ANALYZED BY MARK

COMPOUND	UG/KG	MDL
2,4-D	U	110
SILVEX	U	11.0

Percent Solid of 90.7 is used for all target compounds.

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.

ACCREDITED LABORATORIES, INC.
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620619
Field ID: BG06
Client Name: ORSC

Matrix: Solid
Date Received: 11/01/96

CAS No.	Element	Result MG/KG	MDL MG/KG	Dilution Factor	Method	Date Analyzed
7429-90-5	Aluminum	954	67.6	1	P	11/08/96
7440-36-0	Antimony	ND	6.76	1	P	11/08/96
7440-38-2	Arsenic	1.03	.522	1	F	11/08/96
7440-39-3	Barium	53.4	2.03	1	P	11/08/96
7440-41-7	Beryllium	ND	.338	1	P	11/08/96
7440-43-9	Cadmium	1.05	.676	1	P	11/08/96
7440-70-2	Calcium	852	67.6	1	P	11/08/96
7440-47-3	Chromium	11.4	2.03	1	P	11/08/96
7440-48-4	Cobalt	ND	2.03	1	P	11/08/96
7440-50-8	Copper	21.0	2.03	1	P	11/08/96
7439-89-6	Iron	5990	20.3	1	P	11/08/96
7439-92-1	Lead	1680	20.3	1	P	11/08/96
7439-95-4	Magnesium	14300	33.8	1	P	11/08/96
7439-96-5	Manganese	43.9	1.01	1	P	11/08/96
7439-97-6	Mercury	ND	1.10	1	CV	11/12/96
7440-02-0	Nickel	2.82	2.71	1	P	11/08/96
7440-09-7	Potassium	154	135	1	P	11/08/96
7782-49-2	Selenium	ND	.326	1	F	11/08/96
7440-22-4	Silver	ND	.676	1	P	11/08/96
7440-23-5	Sodium	335	67.6	1	P	11/08/96
7440-28-0	Thallium	ND	33.8	1	P	11/11/96
7440-62-2	Vanadium	4.77	3.38	1	P	11/08/96
7440-66-6	Zinc	737	6.76	1	P	11/08/96

Percent Solid of 90.7 is used for all target elements

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
REGULATED TCLP METALS
INORGANIC ANALYSIS DATA SHEET

Case #: 1625
Sample #: 9620619
Field ID: BG06
Client Name: ORSC

Matrix: Leachate
Date Received: 11/01/96

CAS No.	Element	Result MG/L	MDL MG/L	Dilution Factor	Regulatory Level	Method	Date Analyzed
7440-38-2	Arsenic	ND	5.00	1	5.00	P	11/13/96
7440-39-3	Barium	.446	.250	1	100.00	P	11/13/96
7440-43-9	Cadmium	ND	.150	1	1.00	P	11/13/96
7440-47-3	Chromium	ND	.150	1	5.00	P	11/13/96
7439-92-1	Lead	1.73	1.50	1	5.00	P	11/13/96
7439-97-6	Mercury	ND	.001	1	.20	CV	11/14/96
7782-49-2	Selenium	ND	2.50	1	1.00	P	11/13/96
7440-22-4	Silver	ND	.150	1	5.00	P	11/13/96

ND - Element analyzed for but not detected.

P - Analyzed by ICP

CV - Analyzed by Cold Vapor

F - Analyzed by GFA

A - Analyzed by flame AA

ACCREDITED LABORATORIES, INC.
TCLP VOLATILES ANALYSIS DATA

USE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620619	DILUTION FACTOR	10
DATA FILE	>C9723	DATE EXTRACTED	
CLIENT NAME	OHMRSC	DATE ANALYZED	11/14/96
FIELD ID	BG06	ANALYZED BY	DANIEL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
71432	Benzene	U	.050	0.5
78933	2-Butanone	U	.100	200.0
56235	Carbon Tetrachloride	U	.050	0.5
108907	Chlorobenzene	U	.050	100.0
67663	Chloroform	U	.050	6.0
75354	1,1-Dichloroethene	U	.050	0.7
107062	1,2-Dichloroethane	U	.050	0.5
127184	Tetrachloroethene	U	.050	0.7
79016	Trichloroethene	U	.050	0.5
75014	Vinyl Chloride	U	.100	0.2

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	102 %	76 - 114	OK
Toluene-d8	102 %	88 - 110	OK
Bromofluorobenzene	99 %	86 - 115	OK

(U) Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Butanone = Methyl ethyl ketone

ACCREDITED LABORATORIES, INC.
TCLP SEMIVOLATILES ANALYSIS DATA

CASE NUMBER 1625
SAMPLE NUMBER 9620619
DATA FILE >F8748
CLIENT NAME OHMRSC
FIELD ID BG06

MATRIX
DILUTION FACTOR
DATE EXTRACTED
DATE ANALYZED
ANALYZED BY

Leachate
10
11/12/96
11/14/96
PAUL

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
110861	Pyridine	U	.10	5.0
106467	1,4-Dichlorobenzene	U	.10	7.5
95478	2-Methylphenol	U	.10	200.0
108394	3&4-Methylphenol	U	.10	200.0
67721	Hexachloroethane	U	.10	3.0
989103	Nitrobenzene	U	.10	2.0
87683	Hexachlorobutadiene	U	.10	0.5
88062	2,4,6-Trichlorophenol	U	.10	2.0
9109104	2,4,5-Trichlorophenol	U	.50	400.0
121142	2,4-Dinitrotoluene	U	.10	0.13
118741	Hexachlorobenzene	U	.10	0.13
878610	Pentachlorophenol	U	.10	100.0

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
2-Fluorophenol	58 %	21 - 100	OK
Phenol-d5	75 %	10 - 94	OK
Nitrobenzene-d5	85 %	35 - 114	OK
2-Fluorobiphenyl	79 %	43 - 116	OK
2,4,6-Tribromophenol	79 %	10 - 123	OK
Terphenyl-d14	56 %	33 - 141	OK

U - Indicates compound was analyzed for but not detected

U - Indicates compound was analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

* 2-Methylphenol = o-cresol
* 3-Methylphenol = m-cresol
* 4-Methylphenol = p-cresol

** 3-Methylphenol and 4-Methylphenol can not be separated by the method applied.

ACCREDITED LABORATORIES, INC..
TCLP PESTICIDES ANALYSIS DATA

CASE NUMBER 1625
 SAMPLE NUMBER 9620619
 DATA FILE >G6140
 CLIENT NAME OHMRSC
 FIELD ID BG06

MATRIX
 DILUTION FACTOR 50
 DATE EXTRACTED 11/11/96
 DATE ANALYZED 11/13/96
 ANALYZED BY MARK

Leachate

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
58899	G-BHC (Lindane)	U	.002	0.400
76448	Heptachlor	U	.002	0.008
1024573	Heptachlor Epoxide	U	.002	0.008
72208	Endrin	U	.005	0.02
72435	Methoxychlor	U	.025	10.0
5103719	A-Chlordane	U	.002	0.03
5103742	G-Chlordane	U	.002	0.03
8001352	Toxaphene	U	.050	0.5

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>ADVISORY LIMITS</u>	<u>STATUS</u>
DCB	<u>81%</u>	30 - 150	OK
Tetrachloro-m-xylene	<u>61%</u>	30 - 150	OK

U - Indicates compound was analyzed for but not detected.
 E - Indicates result exceeds highest calibration standard.
 D - Indicates result is based on a dilution.

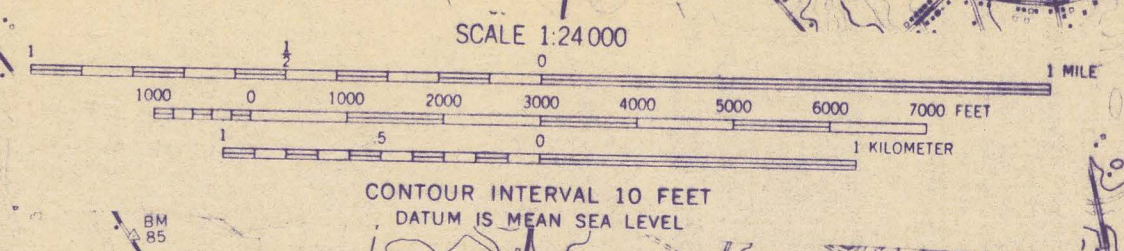
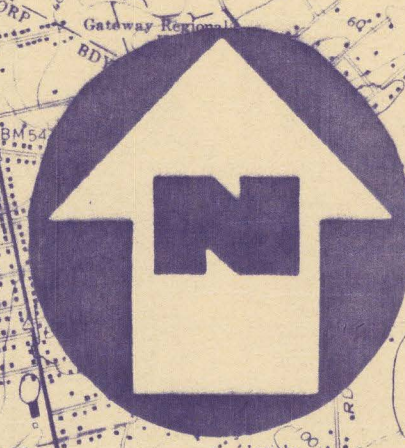
ACCREDITED LABORATORIES, INC
TCLP HERBICIDE ANALYSIS DATA

BASE NUMBER	1625	MATRIX	Leachate
SAMPLE NUMBER	9620619	DILUTION FACTOR	1
DATA FILE	>A8548	DATE EXTRACTED	11/11/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/12/96
FIELD ID	BG06	ANALYZED BY	MARK

CAS No.	Compound	Result (mg/l)	MDL (mg/l)	Regulatory Level (mg/l)
94757	2,4-D	U	.100	10.0
93721	SILVEX	U	.010	1.0

U - Indicates compound was analyzed for but not detected

REFERENCE NO. 5



Roy F. Weston, Inc.
FEDERAL PROGRAMS DIVISION

IN ASSOCIATION WITH RESOURCE APPLICATION, INC.
G.C. JOHNSON & MALHOTRA, P.C., R.E. SARRIERA ASSOCIATES,
PRC ENVIRONMENTAL MANAGEMENT, AND GRS ENVIRONMENTAL SERVICES, INC.

QUAD:	Woodbury, NJ-PA	TITLE:	Four-Mile Vicinity Map
SITE NAME:	Yurgin Motors	SCALE:	1:24,000
TDD#:	02-96-08-0002	DATE:	12/2/96

REFERENCE NO. 6

J. Fr/08A

Hydrogeologic Framework of the New Jersey Coastal Plain

By OTTO S. ZAPECZA

REGIONAL AQUIFER-SYSTEM ANALYSIS—
NORTHERN ATLANTIC COASTAL PLAIN

U. S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 1404 - B



DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., *Secretary*

U.S. GEOLOGICAL SURVEY

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Federal Center, Box 25425, Denver, CO 80225

TABLE 1.—Generalized stratigraphic correlation chart of the northern Atlantic Coastal Plain

ERA	SYSTEM	SERIES	NORTH CAROLINA	VIRGINIA		MARYLAND		DELAWARE	NEW JERSEY	NEW YORK
Cenozoic	Quaternary	Pleistocene	Unnamed	Undifferentiated deposits		Undifferentiated deposits		Undifferentiated deposits	Cape May Formation Undifferentiated deposits	Upper Pleistocene deposits Gardners Clay Jameco Gravel
	Tertiary	Pliocene	Chowan River Formation Yorktown Formation	Chesapeake Group	Chowan River Formation Yorktown Formation	Chesapeake Group	Yorktown Formation	Undifferentiated deposits		Mannetto Gravel (Pliocene?)
		Miocene	Pungo River Formation Belgrade Formation		Eastover Formation St. Marys Formation Choptank Formation Calvert Formation		Eastover Formation Brandywine Formation St. Marys Formation Choptank Formation Calvert Formation	Chesapeake Group undivided	Pensaiken Formation Bridgeton Formation Cohansey Sand Kirkwood Formation	
		Oligocene	River Bend Formation		Unnamed					
		Eocene	Castle Hayne Formation	Chickahominy Formation Piney Point Formation Nanjemoy Formation		Piney Point Formation Nanjemoy Formation		Piney Point Formation Nanjemoy Formation	Piney Point Formation Shark River Formation	
		Paleocene	Beaufort Formation	Marlboro Clay Aquia Formation Brightseat Formation		Aquia Formation Brightseat Formation		Rancocas Group Vincentown Formation Hornerstown Formation	Rancocas Group Manasquan Formation Vincentown Formation Hornerstown Sand	
Mesozoic	Cretaceous	Upper Cretaceous	Peedee Formation	Mattaponi Formation		Severn Formation		Severn Formation	Monmouth Group Tinton Sand Red Bank Sand Navesink Formation Mount Laurel Sand	Monmouth Group
			Black Creek Formation			Matawan Formation		Mount Laurel Sand		
			Middendorf Formation			Magothy Formation		Marshalltown Formation Englishtown Formation Woodbury Clay Merchantville Formation	Matawan Group Wenonah Formation Marshalltown Formation Englishtown Formation Woodbury Clay Merchantville Formation	Matawan Group
			Cape Fear Formation							
	Jurassic (?)	Lower Cretaceous	Unnamed	Potomac Group	Patuxent Formation Patuxent Formation	Potomac Group	Patuxent Formation Arundel Formation Patuxent Formation	Potomac Formation	Potomac Group	Magothy Formation Raritan Formation Raritan Formation Clay member Lloyd Sand member
			Unnamed							

Modified from Meisler, 1980, fig. 4.

REGIONAL AQUIFER-SYSTEM ANALYSIS

TABLE 2.—Geologic and hydrogeologic units in the New Jersey Coastal Plain

SYSTEM	SERIES	GEOLOGIC UNIT	LITHOLOGY	HYDROGEOLOGIC UNIT	HYDROLOGIC CHARACTERISTICS		
Quaternary	Holocene	Alluvial deposits	Sand, silt, and black mud	Undifferentiated	Surficial material, often hydraulically connected to underlying aquifers. Locally some units may act as confining beds. Thicker sands are capable of yielding large quantities of water		
		Beach sand and gravel	Sand, quartz, light-colored, medium- to coarse-grained, pebbly				
Tertiary	Pleistocene	Cape May Formation	Sand, quartz, light-colored, heterogeneous, clayey, pebbly	Kirkwood-Cohansey aquifer system	A major aquifer system. Ground water occurs generally under water-table conditions. In Cape May County the Cohansey Sand is a confined aquifer		
		Pensauken Formation					
	Miocene	Bridgeton Formation	Gravel, quartz, light-colored, sandy	Confining bed	Thick diatomaceous clay bed occurs along coast and for a short distance inland. A thin water-bearing sand occurs within the middle of this unit		
		Beacon Hill Gravel					
		Cohansey Sand	Sand, quartz, light-colored, medium- to coarse-grained, pebbly; local clay beds				
		Kirkwood Formation	Sand, quartz, gray and tan, very fine to medium-grained, micaceous, and dark-colored diatomaceous clay				
		Eocene	Piney Point Formation	Sand, quartz and glauconite, fine- to coarse-grained	Atlantic City 800-foot sand	A major aquifer along the coast	
	Shark River Formation		Clay, silty and sandy, glauconitic, green, gray, and brown, fine-grained quartz sand				
	Manasquan Formation						
	Paleocene	Vincentown Formation	Sand, quartz, gray and green, fine- to coarse-grained, glauconitic, and brown, clayey, very fossiliferous, glauconite and quartz calcarenite	Piney Point aquifer	Yields moderate quantities of water locally		
		Hornerstown Sand	Sand, clayey, glauconitic, dark green, fine- to coarse-grained				
	Cretaceous	Upper Cretaceous	Tinton Sand	Sand, quartz, and glauconite, brown and gray, fine- to coarse-grained, clayey, micaceous	Composite confining bed	Poorly permeable sediments	
Red Bank Sand							
Navesink Formation			Sand, clayey, silty, glauconitic, green and black, medium- to coarse-grained				
Mount Laurel Sand			Sand, quartz, brown and gray, fine- to coarse-grained, slightly glauconitic				
Wenonah Formation			Sand, very fine to fine-grained, gray and brown, silty, slightly glauconitic	Wenonah-Mount Laurel aquifer	A major aquifer		
Marshalltown Formation			Clay, silty, dark greenish-gray, glauconitic quartz sand				
Englishtown Formation			Sand, quartz, tan and gray, fine- to medium-grained; local clay beds	Marshalltown-Wenonah confining bed	A leaky confining bed		
Woodbury Clay			Clay, gray and black, micaceous silt				
Merchantville Formation			Clay, glauconitic, micaceous, gray and black; locally very fine grained quartz and glauconitic sand	Englishtown aquifer system	A major aquifer. Two sand units in Monmouth and Ocean Counties		
Magothy Formation			Sand, quartz, light-gray, fine- to coarse-grained; local beds of dark-gray lignitic clay				
Raritan Formation			Sand, quartz, light-gray, fine- to coarse-grained, pebbly, arkosic, red, white, and variegated clay	Merchantville-Woodbury confining bed	A major confining bed. Locally the Merchantville Fm. may contain a thin water-bearing sand		
Potomac Group			Alternating clay, silt, sand, and gravel				
Lower Cretaceous				Potomac-Raritan-Magothy aquifer	Upper aquifer	A major aquifer system. In the northern Coastal Plain, the upper aquifer is equivalent to the Old Bridge aquifer and the middle aquifer is the equivalent of the Farrington aquifer. In the Delaware River Valley, three aquifers are recognized. In the deeper subsurface, units below the upper aquifer are undifferentiated	
							Conf. bed
Pre-Cretaceous				Middle aquifer			
						Conf. bed	
				Lower aquifer			

and horizontal relationships among the 15 regional hydrogeologic units mapped.

Outcrop areas shown on the hydrogeologic maps were modified from those compiled by J.P. Owens in Miscellaneous Geologic Investigations Map I-514-B (U.S. Geological Survey, 1967). In places, subsurface hydrogeologic units mapped constitute only the sandy or clayey parts of specific geologic formations and make up an undefined part of the outcrop. Therefore it should be noted that the outcrop areas shown on the structure contour and thickness maps cannot be considered the outcrop areas for these hydrogeologic units. The outcrop areas, however, can generally be used to estimate up-dip limits of aquifers and confining beds and to approximate lines of zero thickness.

Information on the wells used to construct the framework is given in table 3 (at back of report). The information for each well includes the U.S. Geological Survey well number, latitude, longitude, local well identifier, municipality, and total depth logged. If a geophysical log of the well appears in a hydrogeologic section, the name of the section is given in the last column.

The location of the wells listed in table 3 and the lines of the hydrogeologic sections shown on plates 3, 4, and 5 are shown on plate 2. The hydrogeologic sections shown on plates 3, 4, and 5 are referenced throughout the section on "Aquifers and Confining Beds."

The hydrogeologic control data for each site are listed in table 4 (at back of the report). Table 4 contains the U.S. Geological Survey well number, the altitude of the land surface, and the altitude of the top and bottom of each aquifer unit penetrated by each well. This table facilitates a rapid view of the hydrogeologic section at any site and is useful for calculating thicknesses if alternative divisions of hydrogeologic units are required.

AQUIFERS AND CONFINING BEDS

POTOMAC-RARITAN-MAGOTHY AQUIFER SYSTEM

In New Jersey, sediments of the Cretaceous Potomac Group, and the Raritan and Magothy Formations have generally been combined and described as a single hydrologic unit (Barksdale and others, 1958, p. 92) or as an aquifer system (Gill and Farlekas, 1976 and Luzier, 1980). This approach has been widely used because the individual formations are lithologically indistinguishable from one another over large areas of the Coastal Plain. In addition to the problems encountered in differentiating these sediments, Barksdale and others (1958, p. 91) considered the major aquifers within these units to be interconnected over some distance, although in many areas they were locally distinct.

LITHOLOGIC SUBDIVISION	
MAGOTHY FORMATION	CLIFFWOOD BEDS
	MORGAN BEDS
	AMBOY STONEWARE CLAY MEMBER
	OLD BRIDGE SAND MEMBER
RARITAN FORMATION	SOUTH AMBOY FIRE CLAY MEMBER
	SAYREVILLE SAND MEMBER
	WOODBIDGE CLAY MEMBER
	FARRINGTON SAND MEMBER
	RARITAN FIRE CLAY
BASEMENT	

FIGURE 3.—Lithologic subdivision of the Raritan and Magothy Formations in the Raritan embayment. (Modified from Christopher, 1979, fig. 2.)

In the outcrop area of the Raritan and Magothy Formations near Raritan Bay, nine distinct units have been recognized (fig. 3). The lithologic subdivision of the Raritan Formation reported by Ries and others (1904) was modified by Berry (1906) and by Barksdale and others (1943, p. 18). These early reports included the Old Bridge Sand Member and the Amboy Stoneware Clay Member as part of the Raritan Formation. Owens and others (1968) redefined the Magothy Formation and, on the basis of unpublished palynological work by Wolfe and Pakiser, included the Amboy Stoneware Clay member as part of the Magothy along with the Morgan beds and the Cliffwood beds. Subsequently, Wolfe and Pakiser (1971, p. B41) reassigned the Old Bridge Sand Member as the basal member of the Magothy Formation. On the basis of spore and pollen analysis and interpretations of borehole geophysical and lithologic logs, Perry and others (1975, p. 1542) have traced the individual members of the Raritan and Magothy Formations into the deeper subsurface of Monmouth and Ocean Counties (fig. 4).

In the northern Coastal Plain, in parts of Mercer, Middlesex, and Monmouth Counties, two major aquifers have previously been defined within the Potomac-Raritan-Magothy aquifer system: the Farrington aquifer and the Old Bridge aquifer (Barksdale and others, 1943; Farlekas, 1979). The Farrington aquifer is composed primarily of the Farrington Sand Member of the Raritan Formation, and the Old Bridge aquifer is composed mainly of the Old Bridge Sand Member of the Magothy Formation.

In the southern Coastal Plain of New Jersey, water-bearing zones within the Potomac Group and the Raritan and Magothy Formations have generally been considered to function together as one hydrologic unit. The lithologic subdivisions of the Raritan and Magothy Formations recognized in the Raritan embayment are not evident in their outcrop area near the Delaware River (Owens and Sohl, 1969, p. 239-242). However, in an intensive study of the Potomac-Raritan-Magothy aquifer system in the Delaware Valley between Trenton and the Delaware Bay, Gill and Farlekas (written commun., 1970) subdivided the aquifer system, on the basis of geologic and geophysical well logs, into three aquifers, designated lower, middle, and upper, and two interjacent confining layers. Farlekas and others (1976) also show a three-aquifer breakdown of the system in Camden County.

Within the Potomac-Raritan-Magothy aquifer system, five mappable hydrologic units of varying extent are defined in this report. The five units include three aquifers, designated lower, middle, and upper, on the basis of stratigraphic position within the system, and two confining beds that lie interjacent to the aquifers.

LOWER AQUIFER

The altitude of the top of the lower aquifer and the aquifer's thickness are shown on plate 6. The lower aquifer has the most limited extent of the three aquifers within the Potomac-Raritan-Magothy aquifer system. It lies on the bedrock or weathered bedrock surface from northwestern Burlington to Salem Counties and is recognizable in the subsurface for approximately 8 to 12 mi downdip from the northwestern extent of the undifferentiated outcrop area of the Potomac Group and the Raritan Formation. In the updip direction, the aquifer thins and wedges out as successively younger beds overlap the bedrock surface (section *G-G'*, pl. 4). To the north, the lower aquifer thins and wedges out against a local basement high in the vicinity of Mount Holly in Burlington County (section *I-B*, pl. 4). In the downdip direction, the thickness of the lower aquifer increases uniformly southeastward to greater than 250 ft.

The aquifer thicknesses shown on plate 6 reflect the total thickness of the unit. Because of the fluvial depositional history of the Potomac and Raritan sediments in this area, considerable amounts of silt and clay are locally interbedded with the sand and gravel of the lower aquifer. Therefore, percentages of sand estimated from geophysical logs are also indicated on the thickness map for the lower aquifer. In most places, sand makes up more than 70 percent of the lower aquifer. Silt and clay beds within the lower aquifer are most prominent in Salem County. The lower aquifer in Salem County is similar and probably equivalent to the lower hydrologic zone of the Potomac Formation described by Sundstrom and others (1967, p. 18) within New Castle County, Del., located across the Delaware River adjacent to Salem County.

Southeast of the area contoured on plate 6, very few wells have penetrated the lower section of the Potomac-Raritan-Magothy aquifer system. Hence, the lower aquifer cannot be differentiated from overlying and underlying units in the deeper subsurface on the basis of available geophysical data (section *H-H'*, pl. 4).

The lower aquifer is used for water supply primarily in northwestern Gloucester County, northwestern Camden County, and adjoining northwestern Burlington County. In southwestern Gloucester County and Salem County, use of the lower aquifer is limited owing to higher chloride concentrations (Luzier, 1980, fig. 2; Fusillo and Voronin, 1981, table 3).

CONFINING BED BETWEEN THE LOWER AND MIDDLE AQUIFERS

The confining bed overlying the lower aquifer of the Potomac-Raritan-Magothy aquifer system is composed primarily of very fine grained silt and clay sediments of the Potomac Group and the Raritan Formation. The thickness of the confining bed between the lower and middle aquifers is shown on plate 6. On geophysical logs, the confining bed is recognizable in the subsurface over approximately the same area as the lower aquifer, from southern Burlington County to Salem County and within 12 mi of the outcrop area of the Potomac Group and the Raritan Formation. This confining bed is less than 50 ft thick over half its mappable extent. Confining-bed thicknesses generally increase downdip toward the east. However, the thickening of this unit is not uniform because of local lensing between silt, sand, and clay especially in Camden and Gloucester Counties. The confining bed exceeds 100 ft in thickness in downdip areas

MIDDLE AQUIFER

The mappable extent of the top of the middle aquifer is shown on plate 7. The middle aquifer extends from

the Delaware River adjacent to Salem County to Raritan Bay in the northeastern Coastal Plain. Between Salem County and northern Burlington County, the middle aquifer has been traced in the subsurface within a 10- to 12-mi band that parallels the outcrop area. In the undip-sloped areas down-dip, the middle aquifer, like the lower aquifer, cannot be distinguished from other beds within the Potomac Group and the Raritan Formation. Northeast of Burlington County, the middle aquifer is the equivalent of the Farrington aquifer described by Farlekas (1979). Hydrogeologic section *I-B* (pl. 4) shows the lateral continuity of the middle aquifer near the Delaware River and the Farrington aquifer recognized in the northeastern Coastal Plain. In the northeastern Coastal Plain, the top of the middle aquifer is persistent in the deeper subsurface of Monmouth and northern Ocean Counties (hydrogeologic sections, pl. 3).

Aquifer thickness and percentages of sand of the middle aquifer are shown on plate 8. In the northern Coastal Plain, the thickness of the middle aquifer ranges from less than 50 ft in and near the outcrop to more than 150 ft near the junction of Mercer, Middlesex, and Monmouth Counties. Although the top of the middle aquifer can be traced into northern Ocean County, it is not possible, relying solely on geophysical data, to separate it from underlying sediments within the Potomac-Raritan-Magothy aquifer system. Therefore, thickness contours have not been extended farther down-dip into Monmouth and Ocean Counties.

The predominantly sandy nature of the undifferentiated sediments between the bedrock surface and the top of the middle aquifer in northern Ocean County is evident from the geophysical logs for sections *D-D'* (pl. 3) and *K-C'* (pl. 5). This undifferentiated zone within the Potomac-Raritan-Magothy aquifer system has become important in recent years. A number of large-production public-supply wells in northern Ocean County are equipped with multiple screens so as to tap sandy beds in this zone. More detailed studies are needed to determine what effect heavy ground-water withdrawals from this zone may have on up-dip differentiated aquifers within the Potomac-Raritan-Magothy aquifer system.

Between Salem and Burlington Counties near the Delaware River, percentages of sand and aquifer thicknesses of the middle aquifer are more variable over shorter distances than in the northeastern Coastal Plain of New Jersey, where sand generally ranges from 75 to 85 percent. In and near the outcrop area near the Delaware River, sand ranges from 60 to 100 percent. In this area, lithologic variability and abrupt changes in the thickness of individual sand and clay beds within the unit are common.

In the Delaware Valley, the most productive and developed areas for ground-water withdrawals from the middle aquifer are located between northwestern Burlington and northwestern Gloucester Counties. As in the lower aquifer, discontinuous silt and clay beds are common within the middle aquifer in Salem County.

CONFINING BED BETWEEN THE MIDDLE AND UPPER AQUIFERS

The thickness of the confining bed between the middle and upper aquifers of the aquifer system is shown on plate 9. In the northeastern Coastal Plain of New Jersey this confining bed is equivalent primarily to the Woodbridge Clay Member of the Raritan Formation. The Woodbridge Clay is a thin- to thick-bedded sequence of micaceous silts and clays (Owens and Sohl, 1969, p. 239). Locally, the confining bed may also include the clayey lithofacies of the Sayreville Sand Member and the South Amboy Fire Clay Member, both of the Raritan Formation (Farlekas, 1979, p. 16). In the down-dip areas of Burlington, Ocean, and Monmouth Counties, this confining bed may be the equivalent of the Bass River Formation proposed by Petters (1976).

The thickness of the confining bed generally increases from around 50 ft in and near the outcrop to more than 150 ft toward the southeast, with some local thicknesses in excess of 200 ft. However, locally, in northern Gloucester and Camden Counties near the Delaware River, the confining bed between the middle and upper aquifers is less than 20 ft thick.

UPPER AQUIFER

The upper aquifer is the most extensive unit of the Potomac-Raritan-Magothy aquifer system, and it coincides most closely with a single geologic unit, the Magothy Formation. It is recognizable on geophysical logs that penetrate the section throughout the New Jersey Coastal Plain (pls. 3-5).

The altitude of the top and the thickness of the upper aquifer are shown on plates 10 and 11, respectively. In the northeastern Coastal Plain the upper aquifer is the equivalent primarily of the Old Bridge Sand Member of the Magothy Formation. Locally, the aquifer also includes the Sayreville Sand Member of the Raritan Formation, where the South Amboy Fire Clay Member is thin or missing (Farlekas, 1979, p. 22). The upper aquifer decreases in thickness from greater than 200 ft in the northeastern Coastal Plain to approximately 50 ft in Cape May County. It is composed predominately of permeable coarse-grained sediments. Clay beds are generally thin and localized. Therefore, percentages of sand are not included on the thickness map for the upper aquifer.

In the Raritan embayment, the Magothy Formation thickens rapidly and includes the interbedded sand, silt, and clay sequences of the Cliffwood and Morgan beds (Perry and others 1975, p. 1543). These beds are recognized only locally in outcrop and in the subsurface of the Sandy Hook Bay area. Perry and others (1975, fig. 11) show that downdip the Cliffwood and Morgan beds interfinger and pinch out within the Merchantville Formation and the Woodbury Clay (fig. 4). The top of the upper aquifer in the Sandy Hook area, as mapped in this report (pl. 10), is the top of the Old Bridge Sand Member of the Magothy Formation. Therefore, the thickness of the upper aquifer (pl. 11) in the Sandy Hook area does not include the overlying Cliffwood and Morgan beds of the Magothy Formation.

MERCHANTVILLE-WOODBURY CONFINING BED

The confining bed overlying the upper aquifer of the Potomac-Raritan-Magothy aquifer system is composed primarily of sediments of the Merchantville Formation and the Woodbury Clay of Late Cretaceous age. The Merchantville Formation is the oldest outcropping glauconitic unit in the New Jersey Coastal Plain. In addition to glauconite beds, the unit also contains thin- to thick-bedded sequences of micaceous clays and clayey silts. Locally within Camden County and parts of Gloucester County, Farlekas and others (1976, p. 53) mapped a sand unit within the Merchantville Formation as much as 30 ft thick that supplies water for small domestic needs. The overlying Woodbury Clay is essentially a thick, massive, clayey silt (Owens and Sohl, 1969, p. 242). The contact between the underlying upper aquifer of the Potomac-Raritan-Magothy aquifer system and the Merchantville-Woodbury confining bed is distinct and easily detected on geophysical logs (pls. 3-5).

The Merchantville-Woodbury confining bed is the most extensive confining bed within the New Jersey Coastal Plain. It functions as an effective confining layer between the upper aquifer of the Potomac-Raritan-Magothy aquifer system and the Englishtown aquifer system. It is also the major confining bed between the upper aquifer and the Wenonah-Mount Laurel aquifer in downdip areas to the southeast, where the Englishtown aquifer system is absent. The thickness of the Merchantville-Woodbury confining bed is shown on plate 12. The Merchantville Formation crops out in an irregular band between Raritan Bay and the Delaware River adjacent to Salem County. The outcrop area of the younger Woodbury Clay parallels the Merchantville outcrop but pinches out southwest of Woodbury in Gloucester County (Owens and Sohl, 1969, p. 242).

On plate 12, the line showing the approximate downdip limit of the Englishtown aquifer system divides the map into two areas. Between this line and the outcrop area, the Merchantville-Woodbury confining bed lies between the upper aquifer of the Potomac-Raritan-Magothy aquifer system and the Englishtown aquifer system. In this area, confining-bed thicknesses range from about 100 ft near the outcrop area in Salem County to greater than 350 ft in the northeastern Coastal Plain of New Jersey. In the northeastern Coastal Plain, low-permeability units of the Magothy Formation overlying the Old Bridge Sand Member are included within the Merchantville-Woodbury confining bed. These units are the Amboy Stoneware Clay Member and the thin intercalated beds of sand, silt, and clay of the Morgan and Cliffwood beds.

Downdip from the line indicating the limit of the Englishtown aquifer system, the Merchantville-Woodbury confining bed lies interjacent to the upper aquifer of the Potomac-Raritan-Magothy aquifer system and the Wenonah-Mount Laurel aquifer. Here, the confining bed also includes silty and clayey sediments of the Englishtown Formation and the Marshalltown Formation and the fine-grained lower part of the Wenonah Formation. Confining-bed thicknesses beyond the downdip limit of the Englishtown aquifer system range from less than 150 ft in Cumberland County to more than 450 ft in Ocean County.

An abrupt increase in confining-bed thickness occurs along the limit of the Englishtown aquifer system in southern Ocean County. This is attributed mainly to the greater thickness of silty and clayey sediments of the Englishtown Formation in this area and to the absence of the lower sand unit of the Englishtown aquifer system (section *E-E'*, pl. 3, and section *L'-A'*, pl. 5). The change in confining bed thickness along the edge of the downdip limit of the Englishtown aquifer system becomes less apparent toward the southwestern Coastal Plain of New Jersey. This is because of the thinning of the Englishtown, Marshalltown, and Wenonah Formations in this direction.

ENGISHTOWN AQUIFER SYSTEM

The Englishtown Formation, of Late Cretaceous age, crops out in the western part of the New Jersey Coastal Plain in an irregular band that extends from Raritan Bay to the Delaware River adjacent to Salem County (pl. 13). Owens and Sohl (1969, p. 244) reported that several distinct lithofacies of the formation can be recognized along strike. However, in areas where the Englishtown Formation is exposed, the primary components are fine- to medium-grained sands.

REGIONAL AQUIFER-SYSTEM ANALYSIS

TABLE 4.—Altitudes of top and base
(In feet above

U.S.G.S. number	Altitude of land surface	Kirkwood- Cohansey aquifer system	Atlantic City 800- foot sand		Piney Point aquifer		Vincentown aquifer	
		Base	Top	Base	Top	Base	Top	Base
7-363	14	—	—	—	—	—	—	—
7-392	150	—	—	—	—	—	—	—
7-412	150	60	—	—	—	—	20	-24
7-430	94	-86	—	—	-162	—	—	—
7-451	122	-56	—	—	—	—	—	—
7-469	105	-101	—	—	-167	—	—	—
7-476	111	-38	—	—	-100	-135	—	—
7-512	160	-25	—	—	—	—	—	—
7-516	10	—	—	—	—	—	—	—
9- 2	5	-367	-795	-918	—	—	—	—
9- 13	10	-315	-666	-886	—	—	—	—
9- 19	6	-280	—	—	—	—	—	—
9- 24	9	-241	—	—	—	—	—	—
9- 33	15	-295	-645	-810	—	—	—	—
9- 66	5	-247	—	—	—	—	—	—
9- 89	7	-202	—	—	—	—	—	—
9- 93	6	-264	-635	-790	—	—	—	—
9-110	6	-280	-643	-809	—	—	—	—
9-125	10	-300	-643	-803	—	—	—	—
9-126	7	-324	—	—	—	—	—	—
9-132	7	-377	-820	-954	—	—	—	—
9-148	9	-281	-569	—	—	—	—	—
9-149	12	-145	—	—	—	—	—	—
9-159	5	-337	-784	-927	—	—	—	—
9-166	5	-340	-789	—	—	—	—	—
9-177	5	-346	-750	-905	—	—	—	—
9-181	22	—	-588	-768	-923	-1,013	—	—
11- 44	80	-88	—	—	-196	-330	—	—
11- 72	12	-38	—	—	-146	-281	—	—
11- 96	10	-264	—	—	-343	-555	—	—
11-116	5	-165	—	—	—	—	—	—
11-132	91	-400	—	—	-479	-505	—	—
11-163	80	-149	—	—	-258	-424	—	—
15- 1	133	28	—	—	-68	-157	—	—
15- 3	140	56	—	—	—	—	—	—
15- 6	20	—	—	—	—	—	—	—
15- 27	47	—	—	—	—	—	—	—
15-131	130	—	—	—	—	—	—	80
15-137	29	—	—	—	—	—	—	—
15-139	8	—	—	—	—	—	—	—
15-154	20	—	—	—	—	—	—	—
15-157	5	—	—	—	—	—	—	—
15-183	85	—	—	—	—	—	—	52
15-192	88	—	—	—	—	—	—	—
15-194	10	—	—	—	—	—	—	—
15-227	100	—	—	—	—	—	—	36
15-253	152	66	—	—	—	—	—	—
15-267	150	70	—	—	—	—	-10	-34
15-282	55	—	—	—	—	—	—	—
15-287	30	—	—	—	—	—	—	—

below sea level)

[illegible]

Nichols (1977b) described the geohydrology of the Englishtown Formation in the northern Coastal Plain of New Jersey and recognized that the lithology of the Englishtown Formation in the shallow subsurface of Middlesex, Monmouth, and northwestern Ocean Counties was similar to the lithology in outcrop areas toward the west. In these updip areas of the northern Coastal Plain of New Jersey, the entire Englishtown Formation functions as one aquifer (sections A-A', B-B', and C-C', pl. 3).

In the deeper subsurface of southeastern Monmouth County and northeastern Ocean County, Nichols (1977b, 12-15) identified three distinct lithofacies within the Englishtown Formation. These included an upper and lower sand facies separated by a clayey silt lithofacies. Nichols (1977b, p. 22) considered the upper sand lithofacies of primary importance in the areas where the two distinct sands are present. Only four production wells are known to tap the lower sand lithofacies. Two wells produce water from the lower sand near Lavallette, Ocean County (pl. 13), where the upper sand is absent. The other two wells tap both the lower and upper sand units in the Lakewood area of Ocean County (Walker, 1983, p. 32). All other major production wells that tap the Englishtown aquifer system are screened in the upper sand. Nichols (1977a, p. 20) recognized the lower sand lithofacies as being lithologically and hydrologically continuous with the upper sand in updip areas; however, because of the lack of data, he included only the upper sand as part of the Englishtown aquifer in his simulation model of the aquifer.

The subdivisions of the Englishtown aquifer system from updip areas in Ocean and Monmouth Counties, where the entire system functions as a single water-bearing unit, to downdip areas in northeastern Ocean County and southeastern Monmouth County, where three distinct lithofacies are present, are shown on sections D-D' and E-E' plate 3, and sections K-C' and L-A', plate 5.

The structure contours of the top of the Englishtown aquifer system are shown on plate 13. Where two sands are present within the Englishtown Formation in southeastern Monmouth and northeastern Ocean Counties, the contours represent the top of the upper sand. For wells in which the lower sand has been recognized, the altitude of the top of the lower sand also is given.

The approximate downdip limit of the Englishtown aquifer system is shown on plates 13 and 14. South and east of a line paralleling Forked River in Ocean County and running through Hammonton in Atlantic County and Bridgeton in Cumberland County, the Englishtown aquifer cannot be recognized on geophysical logs that penetrate the section (well 29-19, section E-E', pl. 3).

The thickness of the Englishtown aquifer system is shown on plate 14. In northern Monmouth County, the Englishtown aquifer system thickens from about 40 ft near the outcrop area of the Englishtown Formation to greater than 140 ft near Red Bank. In this area, as in most of Monmouth County, the entire Englishtown aquifer system functions as a single water-bearing unit (sections A-A', B-B', and C-C', pl. 3).

The thickness of the aquifer system shown in southeastern Monmouth and northeastern Ocean Counties includes the clayey silt lithofacies that lies between the lower and upper sand units. For wells that penetrate the entire Englishtown section in this area, thicknesses of the upper and lower sand units are given in addition to the thickness of the entire aquifer system (pl. 14). The aquifer system is thickest where the upper and lower sand units are present in the subsurface. Thicknesses of the clayey silt lithofacies can be calculated from plate 14 by adding the thicknesses of the upper and lower sand units and subtracting the total from the thickness of the entire aquifer system at that point.

The thickness of the upper sand varies between about 40 and 110 ft in southeastern Monmouth and northeastern Ocean Counties. The upper sand thins toward the southeast and cannot be identified in the subsurface east of Toms River, Ocean County. Only the lower sand is recognizable in wells near Lavallette on the barrier beach in Ocean County (section L'-A', pl. 5).

As the upper sand unit thins toward the southeast, the thickness of the underlying clayey silt lithofacies increases (sections D-D' and E-E', pl. 3, and sections K-C' and L'-A', pl. 5). The lower sand has a rather uniform thickness generally between 30 and 50 ft in Ocean County.

The Englishtown aquifer system thins in outcrop and in the subsurface in a southwestern direction (section J-J', pl. 4). In parts of Burlington, Camden, Gloucester, and Salem Counties, the aquifer is commonly less than 40 ft thick. The sands within the Englishtown aquifer system in this area are finer grained, and local silt and clay beds within the unit are common. The aquifer is not a major source of water between Burlington County and southern Salem County, owing to the decrease in aquifer thickness, the greater proportion of fine-grained sediments, resulting in lower yields, and the presence of other more productive aquifers (Nichols, 1977b, p. 20).

MARSHALLTOWN-WENONAH CONFINING BED

The confining bed overlying the Englishtown aquifer system is composed of the Marshalltown Formation and the fine-grained lower part of the Wenonah Formation. The Marshalltown Formation and the overlying Wenonah Formation, both Late Cretaceous in age, crop

out in a northeast-southwest trending belt in the western part of the New Jersey Coastal Plain (pl. 15). The Marshalltown Formation is a thin, uniform, sheetlike deposit of glauconitic silt and sand, usually ranging between 10 and 20 ft thick throughout much of the subsurface of the Coastal Plain. The Wenonah Formation is generally a dark-gray, poorly sorted, micaceous, silty, fine quartz sand. The Wenonah Formation also contains abundant glauconite in its lower part. However, glauconite content diminishes toward the top of the unit as the formation becomes coarser grained (Owens and Sohl, 1969, p. 245). The thickness of the confining bed between the Englishtown aquifer system and the Wenonah-Mount Laurel aquifer is shown on plate 15. Most of the variation in confining-bed thickness is attributed to the variable thickness of the fine-grained lower part of the Wenonah Formation. The Marshalltown-Wenonah confining bed ranges in thickness from about 20 ft in northern Monmouth County to more than 80 ft in Ocean County. The confining bed generally thins toward the southwest. This is consistent with the thinning and pinching out of the outcrop area of the Wenonah Formation in this direction.

The thickness of the Marshalltown-Wenonah confining bed is shown only over the mappable extent of the underlying Englishtown aquifer system. Beyond this limit, the sediments of the Marshalltown and Wenonah Formations become part of the extensive Merchantville-Woodbury confining bed, effectively confining the upper aquifer of the Potomac-Raritan-Magothy aquifer system from the Wenonah-Mount Laurel aquifer. In northeastern Ocean County at Lavallette, where only the lower sand of the Englishtown Formation is present, the Marshalltown-Wenonah confining bed is more than 180 ft thick (sections *D-D'* and *E-E'*, pl. 3, and section *L'-A'*, pl. 5). In this area, the Marshalltown-Wenonah confining bed includes the fine-grained, low-permeability sediments of the Englishtown Formation that overlie the lower sand of the Englishtown Formation.

The leaky nature of the Marshalltown-Wenonah confining bed has been discussed by many investigators. Nemickas (1976, p. 37) has discussed the effect of groundwater withdrawals from the Englishtown aquifer on the Mount Laurel aquifer. Walker (1983) finds similar cones of depression for both aquifers in the Lakewood area of Ocean County, where no significant pumpage from the Wenonah-Mount Laurel aquifer has been reported.

WENONAH-MOUNT LAUREL AQUIFER

The Wenonah-Mount Laurel aquifer is composed of the coarse-grained fraction of the Wenonah Formation and the Mount Laurel Sand, both Late Cretaceous in

age. The sediments generally increase in grain size toward the top of the aquifer. The major component of the aquifer is the Mount Laurel Sand.

Structure contours for the top of the Wenonah-Mount Laurel aquifer are shown on plate 16. The Wenonah-Mount Laurel aquifer can be traced in the subsurface throughout the New Jersey Coastal Plain southeast of its outcrop area. The aquifer is easily identified on gamma-ray logs below the high radiation kick of the Navesink Formation (section *J-J'*, pl. 4).

The thickness of the Wenonah-Mount Laurel aquifer is shown on plate 17. In the northeastern Coastal Plain of New Jersey aquifer thicknesses generally range from 40 ft to greater than 100 ft. Thicknesses between 60 and 80 ft are common throughout wide areas of Monmouth and Ocean Counties. In the northeastern Coastal Plain of New Jersey the aquifer is used mainly in southeastern Monmouth and northern Ocean Counties. The thickest parts of the aquifer are within 10 to 15 mi of the outcrop area of the Mount Laurel Sand in Burlington, Camden, Gloucester, and Salem Counties, where thicknesses of 100 to 120 ft are common. After reaching maximum thicknesses greater than 120 ft in the southwestern Coastal Plain of New Jersey, the aquifer thins gradually toward the southeast to less than 25 ft in Cape May County.

Water in the aquifer contains more than 250 milligrams per liter (mg/L) chloride in most of Cumberland County, the southern half of Atlantic County, and all of Cape May County, based on the altitude of the 250 mg/L isochlor shown by Meisler (1981, fig. 2). All production wells that tap the Wenonah-Mount Laurel aquifer between northern Burlington County and southern Salem County are within 10 mi of the outcrop area of the Mount Laurel Sand.

COMPOSITE CONFINING BED

Overlying the Wenonah-Mount Laurel aquifer and subjacent to the major aquifers within the Kirkwood Formation and the Cohansey Sand lies a complex series of geologic units ranging in age from Late Cretaceous to Miocene. The predominant lithology of most of these units consists of silty and clayey glauconitic quartz sands. The units have low to moderate permeabilities and are generally grouped together and described hydrologically as a composite confining bed (Rush, 1968; Anderson and Appel, 1969; Nemickas, 1976). This confining bed consists of the Navesink Formation and, depending on location within the Coastal Plain, can include most or only a few of the following geologic units: Red Bank Sand, Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and basal clay

of the Kirkwood Formation. Parts of the Red Bank Sand, Vincentown Formation, and Piney Point Formation contain fairly permeable sands that locally are used as sources of water. Although the aquifers within the Vincentown and Piney Point Formations are considered minor, they are regionally extensive in the New Jersey Coastal Plain. Framework information for the Vincentown aquifer and the Piney Point aquifer is presented following the discussion of the composite confining bed.

The outcrop area and the total thickness of the geologic units incorporated in the composite confining bed are shown on plate 18. The northwestern edge of the outcrop is the downdip limit of the outcrop of the Mount Laurel Sand. The southeastern edge of the outcrop is bounded by the updip limit of the outcrop of the Kirkwood Formation. The clay bed at the base of the Kirkwood Formation has been excluded as part of the outcrop of the composite confining bed because its outcrop has not been mapped separately from the sand of the Kirkwood Formation. However, the clay bed is included as part of the total thickness shown on the hydrogeologic sections and on plate 18. In the downdip direction, the composite confining bed increases rapidly in thickness from less than 50 ft in outcrop to 796 ft in well 19 at Island Beach State Park and to more than 1,190 ft in Cape May County.

The Upper Cretaceous Navesink Formation is the basal unit of the composite confining bed throughout its extent in the New Jersey Coastal Plain. It is unconformably overlain by the Paleocene Hornerstown Sand. These two formations, which span the Cretaceous-Tertiary boundary in New Jersey, are excellent marker beds for stratigraphic correlation. Gamma-ray logs that penetrate the Navesink Formation and the Hornerstown Sand show the same high radiation signature throughout the New Jersey Coastal Plain (section *J-J'*, pl. 4). These high radiation kicks coincide with high concentrations of glauconitic sand and shell beds at the base of the Navesink Formation and near the top of the Hornerstown Sand (Rosenau and others, 1969, p. 45). The combined thickness of the Navesink Formation and the Hornerstown Sand is fairly uniform, ranging from 60 to 90 ft throughout much of the subsurface.

Hydrogeologic section *J-J'* on plate 4 shows a progressively greater separation between high radiation kicks of the Navesink Formation and the Hornerstown Sand in northwestern Ocean and Monmouth Counties. This is caused by the northeastward-thickening wedge of the Upper Cretaceous Red Bank and Tinton Sands that overlie the Navesink Formation in this area. North-east of Freehold in Monmouth County, low radiation on logs 25-37 and 25-360 (section *J-J'*, pl. 4) indicates that

the Red Bank Sand section is fairly permeable in and near the outcrop. The significant widening of the composite confining bed toward the northeast end of its outcrop area in Monmouth County (pl. 18) is caused by the presence of the Red Bank Sand. Many domestic wells tap the Red Bank Sand within its Monmouth County outcrop area. However, total withdrawals are minimal (Jablonski, 1968, p. 65). The Red Bank Sand thins rapidly southeast of its outcrop and is absent throughout most of the New Jersey Coastal Plain.

The primary factors causing the dramatic increase in thickness of the composite confining bed in the downdip direction (sections *D-D'* and *E-E'*, pl. 3) are the rapid thickening of beds within the Vincentown and Manasquan Formations and the addition of beds of the Shark River Formation and Piney Point Formation.

VINCENTOWN AQUIFER

Throughout most of its subsurface extent, the Vincentown Formation functions primarily as a confining bed. However, within its outcrop area and for approximately 8 to 10 mi downdip, the formation is tapped by many domestic wells and, locally, by industrial and public-supply wells.

The outcrop area of the Vincentown Formation and the approximate limit, structure contours of the top, and thickness of the Vincentown aquifer are shown on plate 19. The outcrop area extends in an irregular and discontinuous band from northeastern Monmouth County to the Delaware River adjacent to Salem County. In areas where its outcrop is discontinuous, the Vincentown Formation subcrops below the overlapping Kirkwood Formation. In and near its outcrop, the Vincentown formation of Paleocene age contains two lithofacies: a massive sparsely glauconitic quartz sand and a very fossiliferous calcareous quartz sand (Parker and others, 1964, p. 58). The massive quartz sand occurs mainly in outcrop from Ocean County to eastern Monmouth County. The fossiliferous lime-sand facies crops out from Burlington to Salem Counties (Owens and Sohl, 1969, p. 249). These two lithofacies make up the moderately permeable section of the Vincentown Formation, herein referred to as the Vincentown aquifer.

The extent of the Vincentown aquifer can be traced in the subsurface from Monmouth to Salem Counties, but only in a narrow band 3 to 10 mi wide adjacent to and paralleling the outcrop area. The moderately permeable quartz and lime-sand facies in and near the outcrop grades rapidly into finer grained silts and clays downdip. This sharp facies change to less permeable beds downdip has been noted by Enright (1969, p. 15), by Parker and others (1964, p. 58), and by Rush (1968,

p. 53) and is supported by borehole geophysics data (section *D-D'*, pl. 3, and section *L-A'*, pl. 5). The Vincentown aquifer is easily recognizable above the characteristic signature of the underlying Hornerstown Sand on gamma-ray logs that penetrate the section (section *J-J'*, pl. 4). On geophysical logs from areas southeast of the limit of the aquifer, the Vincentown Formation mainly shows beds of higher radioactivity and low resistivity, indicating poor permeabilities.

The Vincentown aquifer thickens from about 20 ft in outcrop and along the southeastern limit to approximately 80 ft in Salem County and northern Burlington County. The aquifer's maximum thickness exceeds 140 ft in Monmouth County, near the outcrop area. The most productive areas of the Vincentown aquifer are in areas of greatest thickness, primarily in Monmouth and Salem Counties.

The thickness of the confining bed underlying the Vincentown aquifer, which can include sediments of the Navesink Formation and the Red Bank, Tinton, and Hornerstown Sands, can be obtained by calculating the base of the Vincentown aquifer from the top and thickness maps (pl. 19) and subtracting the base from the top of the Wenonah-Mount Laurel aquifer (pl. 16). The thickness of the confining bed overlying the Vincentown aquifer, which can include sediments of the Manasquan and basal Kirkwood Formations, can be calculated by comparing the top of the Vincentown aquifer (pl. 19) with the base of the Kirkwood-Cohansey aquifer system (pl. 23). Confining-bed thicknesses can also be calculated from table 4.

PINEY POINT AQUIFER

The Piney Point Formation of middle and late Eocene age is composed of fine- to coarse-grained glauconitic quartz sand and shell beds. Sandy silt and clay are common within the formation and can dominate locally. The Piney Point Formation does not crop out and rests mainly on the beveled surface of the Manasquan Formation (Parker and others, 1964, p. 60) of early Eocene age (Enright, 1969, p. 17). It also overlies and may be equivalent to part of the middle Eocene Shark River Formation in the northeastern Coastal Plain of New Jersey (Enright, 1969, p. 19). The Piney Point Formation is unconformably overlain by a silty clay in the basal part of the Miocene Kirkwood Formation, locally referred to as the Alloway Clay Member in the southern Coastal Plain of New Jersey (Isphording, 1970; Nemickas and Carswell, 1976).

The name Piney Point Formation was first given by Otten (1955, p. 85) to glauconitic sand and shell beds considered to be late Eocene (Jackson) in age, from a well at Piney Point, St. Marys County, Md. The Piney Point

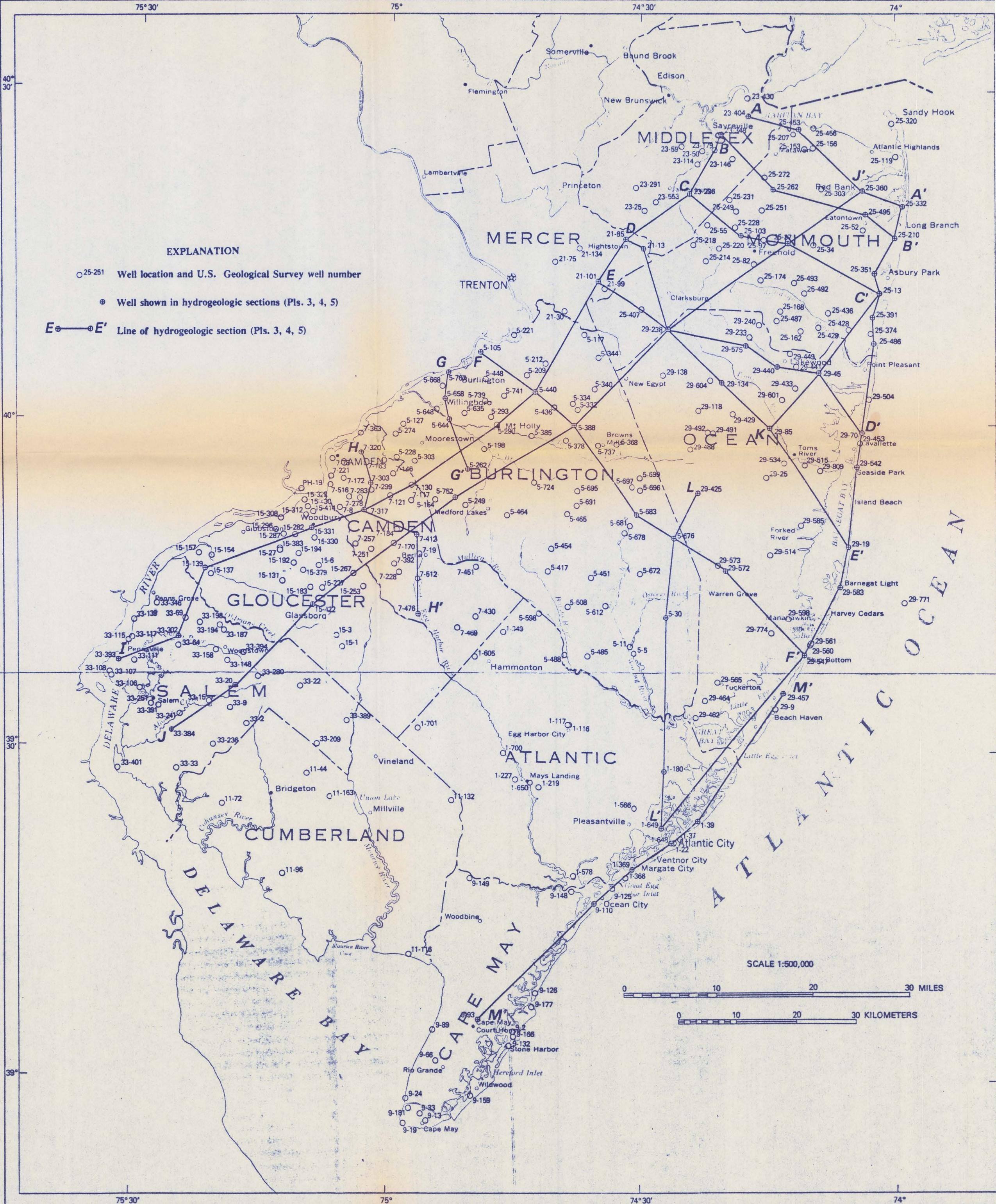
Formation was later traced northeastward to the eastern shore of Maryland by Rasmussen and others (1957, p. 61-67) and subsequently into Delaware by Rasmussen and others (1958). Rasmussen identified the formation in sediments of Jackson age penetrated by a deep well at Atlantic City, N. J. (Richards and others, 1962, p. 31). Richards and others (1962) and Parker and others (1964) have traced the Piney Point Formation into Cumberland, Cape May, and Atlantic Counties and as far east as Atlantic City.

The supposed late Eocene (Jackson) age of the Piney Point Formation has recently been in question. Brown and others (1972, p. 49) examined original material from the type section of the Piney Point. They assigned a middle Eocene (Claiborne) age to the formation on the basis of the discovery of a characteristic middle Eocene foraminifer and several species of ostracodes. Olsson and others (1980) have recently proposed a late Oligocene age for the Piney Point Formation in Maryland and New Jersey on the basis of a study of planktonic foraminifera.

The glauconitic quartz sand and shell beds of the Piney Point Formation yield moderate supplies of water locally to Coastal Plain wells. However, the Piney Point is extensive in the New Jersey subsurface and is believed to be capable of supplying additional water. Therefore, information about aquifer extent, top, and thickness is provided herein.

Nemickas and Carswell (1976) recognized the water-bearing potential of the Piney Point Formation in southern New Jersey. They presented stratigraphic and hydrologic data for the Piney Point aquifer and the overlying Alloway Clay Member of the Kirkwood Formation. On the basis of geophysical logs, Nemickas and Carswell (1976, p. 4) mapped the aquifer in Salem, Gloucester, Cumberland, Atlantic, and Camden Counties.

The altitude of the top of the Piney Point aquifer and the approximate subsurface limit are shown on plate 20. This report redefines the extent of the Piney Point aquifer and shows that it is laterally persistent from the southern Coastal Plain of New Jersey into parts of Burlington and Ocean Counties. In Camden, Burlington, and Ocean Counties this water-bearing unit, here shown as the Piney Point aquifer, has previously been interpreted as being part of the Manasquan Formation. Herick (1962, p. B57) showed a glauconitic shelly sand at the base of the Kirkwood Formation between an interval of approximately 219-260 ft below land surface, in a well at the U.S. Geological Survey New Brooklyn Park test well site, in Camden County (adjacent to well 7-476 of this report). He assigned a middle Eocene (Claiborne) age and the name Manasquan Formation to these sediments, on the basis of foraminifera found within this



BASE FROM U.S. GEOLOGICAL SURVEY STATE BASE MAP
NEW JERSEY 1974, 1:500,000

LOCATION MAP OF WELLS AND LINES OF HYDROGEOLOGIC SECTIONS,
COASTAL PLAIN, NEW JERSEY

REFERENCE NO. 7

TO: Yurgin Motors File DATE: 10 January 1997

FROM: Dennis Foerter

SUBJECT: Groundwater Populations/Use: Yurgin Motors

Based on site topography and a conversation with a local well driller, groundwater beneath the Yurgin Motors site flows to the east-southeast towards the Edwards Run. Most private wells are screened in the Wenonah-Mt. Laurel aquifer, approximately 100 feet below ground surface. No wells are screened in the surficial Composite Confining Bed, due to its poor water quality. The two wells nearest to the Yurgin Motors site (0.1 mile to the east, and 0.1 mile to the west) are screened in the Potomac Raritan Magothy formations and are approximately 400 feet deep. The wells are used for drinking and agricultural purposes.

0-1/4 Mile Distance Ring

1/4-1/2 Mile Distance Ring

Most of the population (approximately 117 people; derived from CENTRACTS data) within this distance ring derives its drinking water through private well screened in the Wenonah-Mt. Laurel

aquifer. A small portion of this distance ring derives its drinking water from public supply wells screened in other distance rings. No public supply wells are located within this distance ring.

1/2-1 Mile Distance Ring

The Clearview High School operates a public supply well approximately 0.6 mile from the site. This well is screened in the PRM and serves approximately 600 people. The remaining population (approximately 395 people) within this distance ring derives its drinking water from private wells screened in the Wenonah-Mt. Laurel aquifer.

1-2 Mile Distance Ring

Two public supply wells (approx. 3,300 people) are owned and operated by the South Jersey Water Supply Co., which serves Harrison Twp. These wells are screened in the PRM. In addition, the Mantua Twp. owns one well in this distance ring. This well is screened in the PRM and serves approximately 1,428 people. The remaining population (approx. 1,140 people) is on private wells screened in the Wenonah-Mt. Laurel aquifer.

2-3 Mile Distance Ring

Mantua Twp. operates four public supply wells (2 screened in the Wenonah-Mt. Laurel; 2 screened in the PRM) in this distance ring. Each of these wells serves approximately 1,428 people. South Jersey Water Supply Co. has one well screened in the PRM which serves approximately 1,650 people. East Greenwich has one public supply well which is screened in the PRM and serves approximately 1,833 people. The remaining population (approx. 2,095 people) is on private wells screened in the Wenonah-Mt. Laurel aquifer.

3-4 Mile Distance Ring

Mantua Twp. operates two public supply wells. One is screened in the Wenonah-Mt. Laurel aquifer and serves approximately 1,428 people; one is screened in the PRM and serves approximately 1,428 people. In addition, Woodbury operates on public supply well which is screened in the PRM and serves approximately 4,500 people. Wenonah operates two public supply wells, which are screened in the PRM and serve a combined total of 2,330 people. East Greenwich owns one well which is screened in the PRM and serves approximately 3,667 people. West Deptford operates two public supply wells, which are screened in the PRM and serve a combined total of approximately 6,334 people. The remaining population (1,850 people) is on private wells screened in the Wenonah-Mt. Laurel aquifer.

Based on the above data, the following population totals were derived for each aquifer.:

<u>Distance</u>	<u>Population</u>	
	<u>Mt. Laurel-Wenonah*</u>	<u>Potomac Raritan Magothy (PRM)</u>
0 - ¼ mile	30	6
> ¼ - ½ mile	117	0
> ½ - 1 mile	395	600
> 1 - 2 miles	1,140	4,728
> 2 - 3 miles	4,951	6,339
> 3 - 4 miles	3,278	18,259
Totals	9,911	29,926

- * - A PreScore evaluation for the Yurgin Motors site identified the Wenonah-Mt. Laurel aquifer as the aquifer of concern for the purposes of this report. This is primarily due to factors including as depth to aquifer coupled with hydraulic conductivities of overlying strata for each aquifer.

Supporting documentation used to compile this project note are attached. Well locations are plotted in the Four-Mile Vicinity Map for the Yurgin Motors site, which is included as Reference No. 5 of the Yurgin Motors PA/IA Report.

Also attached to this project note is the documentation for groundwater movement within the two aquifers used for potable purposes within 4 miles of the Yurgin Motors site (i.e., Mt. Laurel-Wenonah and PRM Formations). This information was obtained from the following: Water Resources and Geology of Gloucester County, New Jersey, USGS Special Report 30, authored by William Hardt and George Hilton, dated 1969 (see attached). This information indicates that the groundwater movements within both of these formations are generally to the southeast.

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		TELECON NOTE
CONTROL NO: 02-96-08-0002	DATE: 11/1/96	TIME: 1400
DISTRIBUTION: Yurgin Motors TDD File		
BETWEEN: Ed Mayers	OF Total Quality Drilling, L.L.C.	PHONE (609) 223-9287
AND Dennis Foerter	OF Region II START	
DISCUSSION		
<p>Mr. Mayers is a local driller in Mantua Twp. and has an intimate knowledge of the local geology and well usage in the area of the Yurgin Motors site. Mr. Mayers informed START of the following:</p> <ol style="list-style-type: none"> 1. Most private potable wells in the area are approximately 100 feet in depth and are screened in the Wenonah-Mt. Laurel aquifer. No potable wells are screened in the overlying Composite Confining Bed, primarily due to the poor water quality of this unit. Most public supply wells and agricultural wells in the area are screened in the deeper Potomac-Raritan-Magothy (PRM) formation. 2. The nearest drinking water well is approximately 410 feet deep and is screened in the PRM formation. The next closest well is also over 400 feet deep and also screened in the PRM. These wells are most likely deeper due to their agricultural use. The inactive Yurgin Motors is approximately 100 feet deep and screened in the Wenonah-Mt. Laurel aquifer. 3. Groundwater at the Yurgin Motors site flows east-southeast. The water table is located approximately 30 feet below ground surface. <p style="text-align: right;">Signature/Date <u>Dennis Foerter 11/1/96</u></p>		
Action Items:		

CONVERSATION RECORD

Conversation with:

Name Scott Newman

Company Maitra Twp. Water Dept.

Address _____

Phone _____

Subject Maitra Twp. Drinking Water Resources

Date 10/24/96

Time 1:00 (AM)PM

☐ Originator Placed Call

☐ Originator Received Call

W.O. NO. 11047-111-002-146

Notes: Met with Mr. Newman under to obtain info on wells in Maitra Township. Maitra Township operates 7 public supply wells which serve major areas of Maitra. Mr. Newman plotted all seven wells on the Kugler Motor 4 mile vicinity map. He also outlined all areas served by the water Dept. Those areas of Maitra not served by the water Dept. are on private wells. All 7 wells are interconnected; some provide over 40% of the system's total capacity. The 7 wells are as follows:

<u>well no</u>	<u>Distance from Kugler Motor</u>	<u>Area Served in</u>
2	3.1	Potomac River, Maryland
3	2.5	" " "
4	2.6	" " "
5	1.5	" " "
6	2.6	Mt. Laurel - Maryland
7	2.4	Mt. Laurel - Maryland
8	3.1	Mt. Laurel - Maryland

The Maitra Twp. municipal system serves ~ 10,000 people (~ 1428 per well). Mr. Newman also told me to call the following water commissioners for complete information on the 4 mile radius - Satterley water (Harrison), F. Greenwich, Weymouth, Woodbury, West Deptford, Pittman, and Chesham Hill Road.

Dennis Foerster
10/24/96

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up Action: _____

Originator's Initials _____

CONVERSATION RECORD

Conversation with:

 Name Mike McIntyre

 Company South Jersey Water Supply Co.

Address _____

 Phone (609) 478-4108

 Subject Harrison Drinking Water Resources

 Date 10/24/96

 Time 1130 AM / PM
☐ Originator Placed Call

☐ Originator Received Call

W.O. NO. _____

Notes:

Mr. McIntyre informed me that So. Jersey Water Supply Co. supplies drinking water to the Township of Harrison with its drinking water. He plotted the wells on York's 4-mile vicinity map and also delineated how much of the Township was served by his supply. The area not served by South Jersey are on private wells. South Jersey Water Co. operates 2 wells with a third well being utilized as a standby well for drought emergencies. This well is maintained. When pumping, none of the wells serves over 40% of the total pumping capacity of the system. The wells are as follows:

well No.	location	Distance from York
2	At S. Jersey H&O Co. (mill rd. Miller Hill)	1.9 miles
3	At S. Jersey H&O Co. (mill rd. Miller Hill)	1.9 miles
6	Near Rt. 45/At. 77 Saltf. off	2.2 miles

All wells are screened in the Potomac Eastern Magorby Formation. The system supplies ~ 4950 people (~ 1650/well).

Duff
10/24/96

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up-Action: _____

Originator's Initials _____

CONVERSATION RECORD

Conversation with:

 Name Joe Schweigart

 Company East Greenwich Water Dept.

Address _____

 Phone (604)

 Subject EAST GREENWICH DRINKING WATER RESOURCES

 Date 10 / 24 / 96

 Time 1300 AM/PM

☐ Originator Placed Call

☐ Originator Received Call

 W.O. NO. 11098-111-002-1410

Notes:

Met with Mr. Schweigart, who informed me that East Greenwich utilized 2 public supply wells to serve portions of E. Greenwich. He located the wells on Yonah Martin's 1/4 mile map, and outlined the extent of municipal service in the town. Areas of E. Greenwich not served by municipal supply are on private wells. The wells are as follows:

well No.	Distance from site (miles)	Capacity
3	3.2 NW of Yonah	1000 gallons per minute
2	2.7 NW of Yonah	500 gallons per minute

Both wells are screened in the Potomac Aquifer. The system serves ~5500 people. (By rate of pumping, well 3 serves 65% of population [3667] and well 2 serves 33% [1832])

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up Action: _____

Originator's Initials _____

PHONE CONVERSATION RECORD

Conversation with:

Name Don Trout

Company Woodbury DPW

Address _____

Phone (609) 853-0842

Subject Woodbury Drinking Water Resources

Date 10 / 28 / 96

Time 0945 (AM)/PM

☒ Originator Placed Call

☐ Originator Received Call

W.O. NO. 11048-111-002-1465

Notes:

Mr. Trout informed me that Woodbury utilizes 3 public supply wells; all are interconnected and pump equally. The wells are as follows:

well no.	Location	Distance from Jct
1	314 East Redbank Ave. Close to City Line near Mullica St	Greater than 4 mile
2	RR tracks between East & South Mullica St.	Greater than 4 mile
3	1755 Glendora Rd. near St. Anthony's School	3.7

The system serves 13,500 people (4,500/well). All three wells are screened in the Potomac Aquifer.

D. Foerke
10/28/96

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up-Action: _____

Originator's Initials _____

PHONE CONVERSATION RECORD

Conversation with:

Name Billy Anne Sk Scully

Company Town of Wrentham

Address 10

Phone (609) 468-5228

Subject Wrentham Drinking Water Refused

Date 10 / 25 / 96

Time 1100 (AM/PM)

☒ Originator Placed Call

☐ Originator Received Call

W.O. NO. 11098-111-002-145T

Notes:

Mr. Scully informed me that utilized 2 public supply wells; they are interconnected; these wells pump equally, no other land over 40% of system is cultivated. The wells, locations and distances are as follows:

well no.	Location	Distance from Town
2	Maple St. just west of RR tracks	3.8 miles
② 1	Butternut/No. Clinton Intersection	3.8 miles

The system serves 2,330 people (1,165/well) Both wells are reserved in the town of Wrentham Mapathy Ag. 50

Deanna Foster
10/25/96

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up-Action: _____

Originator's Initials _____

PHONE CONVERSATION RECORD

Conversation with:

 Name ED Phelan

 Company West Dordford Water Co.

Address _____

 Phone (609) 845-4604

 Subject West Dordford Drinking Water Resources

 Date 1 / 9 / 97

 Time 1010 (AM) PM

☒ Originator Placed Call

☐ Originator Received Call

 W.O. NO. 11098-111-002-1465

Notes:

Mr. Phelan informed me that West Dordford utilizes 6 Public Supply wells; all are interconnected and pump fairly equally. Name pump over 40% of the total capacity. The wells and locations are as follows:

<u>well No.</u>	<u>Location</u>	<u>Distance from York</u>
• 4	Parkville Rd near St. Regis Dr.	3.5 miles
• 8	Parkville Rd at NJ Turnpike	3.7 miles
• 5	Kings Highway between Jessup St. & Martin Lane Rd	over 4 miles
• 3	At Jessup St / Budd Blvd. Intersection	over 4 miles
• 6	Redbank / Oakland St. Intersection	Over 4 miles
• 7	Academy Ave / Jessup St. Intersection	over 4 miles

The system serves approximately 19,000 people (~3167/well). All wells are screened in the Potomac Kenton Masonry Header (PMR).

Dennis Foele
1/9/97

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up-Action: _____

Originator's Initials _____

CONVERSATION RECORD

Conversation with:

Name Tom Brown

Company Pittman Dept of Public Works

Address Elwood Ave

Phone (604) 594-1040

Subject Pittman Drinking Water Reserve

Date 11 / 1 / 96

Time 1:00:00 (AM) PM

☐ Originator Placed Call

☐ Originator Received Call

W.O. NO. _____

Notes: Met with Mr. Brown to discuss Pittman Drinking Water Reserve
Mr. Brown plotted all Pittman public supply wells. All 4 wells
are located between 4.2 and 4.3 to the southeast of the
Yugon Motors site.

Deaf best
11/1/96

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up-Action: _____

Originator's Initials _____

PHONE CONVERSATION RECORD

Conversation with:

Name Steve Crispin

Company Clearview Regional High School

Address _____

Phone (604) 478-0044

Subject Clearview Regional Hi well

Date 1 / 9 / 97

Time 1430 AM PM

☒ Originator Placed Call

☐ Originator Received Call

W.O. NO. 11048-111-002-2465

Notes:

Mr. ~~Steve~~ Crispin returned me that Clearview High operates 5 wells, however 3 are used for watering of grass and one was closed for convenience and hooked into the Harrison Municipal supply. One well is used for drinking and serves 600 people. This well is supposed to be in the Potomac River Main Supply Formation and is ~ 394 feet deep. This well is located ~ 0.6 miles south of The Virgin Motors site.

D. Foster
1/9/97

☐ File _____

☐ Tickle File _____ / _____ / _____

☐ Follow-Up By: _____

☐ Copy/Route To: _____

Follow-Up Action: _____

Originator's Initials _____

WATER RESOURCES AND GEOLOGY OF GLOUCESTER COUNTY, NEW JERSEY

By

WILLIAM F. HARDT and GEORGE S. HILTON

U. S. Geological Survey

SPECIAL REPORT 30

Prepared by the U. S. Geological Survey in cooperation with the
State of New Jersey, Department of Conservation
and Economic Development, Division of Water Policy and Supply

1969

All the wells which tap the Raritan and Magothy Formations are in the northern part of the county except for the well at Clayton. About 17 mgd of water was pumped in 1957 from the Raritan and Magothy Formations in the county—at least 60 percent of which was pumped in the area adjacent to the Delaware River.

Recharge, movement, and discharge.—Prior to the development of the aquifers in the Raritan and Magothy Formations, much of the recharge to the aquifers was from precipitation on the high-level intake areas beyond the boundaries of Gloucester County (Barksdale, and others, 1958, p. 102). The water moved southeastward in response to natural gradients until it reached the interface between fresh water and salt water in the downdip part of the formations. Upon reaching this interface, the movement of fresh water was diverted to the southwest and northeast. Because this interface acted as a barrier to the movement of fresh water downdip, Barksdale and others (1958, p. 111) have theorized that the movement of the fresh water in this aquifer "... swept around through the parts of the aquifer updip from the salt-water barrier and was discharged into the Raritan River and Bay and into the Delaware River and into the Chesapeake Bay in areas where the aquifers were exposed at levels above that of the salt-water barrier."

With the increased economic development in Gloucester County and nearby areas in recent years, pumpage from water-bearing zones of the Raritan and Magothy Formations has increased. Movement of ground water is influenced by the areas of heavy pumping in and near Gloucester County. Near Woodbury and Clarksboro most of the ground water in the Raritan and Magothy Formations moves north under the influence of industrial pumping on both sides of the Delaware River. Along the river in the Paulsboro-Gibbstown and National Park-Westville areas, water levels are near or below sea level and river water may be recharging the upper water-bearing zone. Wells in the lower water-bearing zone in the Paulsboro-Gibbstown area yield water of poor chemical quality, suggesting interconnection with the river or local contamination.

Quality of water

The water from the Raritan and Magothy Formations is generally low in dissolved solids and is of satisfactory chemical quality for public or industrial use in the northwestern four-fifths of the county. The dissolved solids of 53 samples tested between 1950 and 1967 ranged from 72 to 738 mg/l (milligrams per liter) and 36 of these samples contained less than 260 mg/l. Iron concentrations of 53 samples tested ranged from .02 to 29 mg/l and 38 of these samples contained 1.0 mg/l or less. The hardness of water of 54 samples tested ranged from 8 to 166 mg/l and 41 of these samples contained less than 60 mg/l. Fluoride in excess

of 1.5 mg/l occurred in 12 samples tested. Chemical analyses of water obtained from the aquifers downdip from the recharge area show an increase in bicarbonate (table 8). The quality of water in the Raritan and Magothy Formations is influenced by: the quality of the Delaware River water; the position of the fresh-salt water interface downdip in the southeastern end of the county; industrial contamination in the outcrop area, particularly along both sides of the Delaware River; and contamination from any of the formations overlying the aquifers. Water in these formations is probably somewhat brackish in the southeastern part of the county especially in the lower water-bearing zone. Because more than 75 percent of the ground water pumped in the county is from the Raritan and Magothy Formations, precautions may be necessary to protect the aquifers from artificial contamination or salt-water encroachment.

The Delaware River probably is as important a source of recharge as is precipitation on the outcrop area; therefore, the quality of the river water is of prime importance. During periods of low flow, river water of poor quality is more likely to recharge the aquifers. Near the Gloucester-Salem County boundary, the river water is not suitable for most uses during periods of low flow, which generally occur from September to November. On November 2, 1949, the maximum chloride concentrations at three stations on the Delaware River were: opposite Bridgeport, 2,020 mg/l; opposite Gibbstown, 955 mg/l; and opposite National Park, 178 mg/l (Durfor and Keighton, 1954). During 1957, the maximum chloride concentrations at the three stations were 2,220, 1,080, and 230 mg/l, respectively. In the Gibbstown-Paulsboro area, chloride concentrations are high in the water from the Raritan and Magothy Formations. At Gibbstown, water from well 20 E. I. du Pont de Nemours & Co., which is near the river, ranged in chloride content from 254 mg/l in 1953 to 157 mg/l in 1957 (fig. 4). Well 3, which is about 3,000 feet south of well 20, yields water that ranged in chloride content from 22 to 76 mg/l during the 5-year drought period 1953-57. The fact that the chloride content in water from well 20 had decreased during the 5-year period, is an indication that good-quality water may be entering the aquifer from the river and moving poor quality water toward the area of maximum pumpage. This may explain the steady rise in chloride content in the water from well 3, which is near the area of heavy pumping. Depending upon the chloride content of the river, the areas of poor- and good-quality water may eventually be replaced by water of intermediate quality. At the Mobil Oil Co. refinery in Paulsboro, the chloride content of the water has been relatively uniform, although the pumpage increased from 1953 to 1957 (fig. 4, well 33). Water from well 40 has a chloride content of about 240 mg/l during the 5-year period 1953-57.

Marshalltown Formation and the upper part of the Englishtown Formation. These wells are about 100 feet deep and are in a small area south-east of Woodbury near Camden County.

Wenonah Formation and Mount Laurel Sand

Geology

The Wenonah Formation and Mount Laurel Sand in Gloucester County are similar in lithology and are mapped as a geologic unit. The outcrop of the undifferentiated Wenonah Formation and Mount Laurel Sand is parallel to the Delaware River and 4 to 5 miles inland (fig. 2). The outcrop ranges in width from 0.3 to 3.0 miles and covers about 30 square miles. Good exposures of the Mount Laurel Sand underlie the Navesink Formation at Mullica Hill, and the Wenonah Formation is exposed in a road cut 5 miles east of Woodbury on Route 41 between Barrington and Runnemede in Camden County. In Gloucester County the Mount Laurel or upper sand is the predominant formation. It is characterized by medium- to coarse-grained quartzose sands with glauconite generally ranging from less than 5 to about 40 percent. Sand layers, 4 to 5 feet thick, locally contain as much as 90 percent glauconite. The sand ranges from light gray to dark green. The Wenonah Formation is predominant in Camden County and in the northern part of the Coastal Plain. It contains quartz sand that is fine to coarse grained and black, yellow, red, and brown; it is micaceous and contains ferruginous cement layers called "ironstone." Near the contact with the underlying Marshalltown Formation it is a brown silty clay. The Wenonah Formation may contain finer grained material down dip from the outcrop area.

Marine fossils of Cretaceous age have been found in outcrops of both the Wenonah Formation and Mount Laurel Sand. Well drillers can recognize these formations readily by their "salt and pepper" appearance and by fossil shells of belemnites. An analysis of samples from outcrops shows that the Mount Laurel Sand is much coarser grained, and contains more silt than the Wenonah Formation (table 2).

The combined thickness of the Wenonah Formation and Mount Laurel Sand in the county ranges from less than 65 to 95 feet. The dip of the top of the Mount Laurel Sand is about 36 feet per mile to the southeast (fig. 7). The structure contours indicate the top of the Mount Laurel Sand is irregular.

The Mount Laurel Sand is overlain conformably by the Navesink Formation and the Wenonah Formation is underlain conformably by the Marshalltown Formation. A pebble zone occasionally marks the base of the Navesink Formation, and in some places the top of the Marshalltown Formation is marked by the appearance of a dark clay or sandy clay.

Hydrology

The Wenonah Formation and Mount Laurel Sand are hydraulically connected and function effectively as a single aquifer. This aquifer is the main source of domestic water supplies in the north-central part of the county, particularly in the area bounded by Swedesboro and Ewan on the southwest and Almonesson and Turnersville on the northeast. Records of more than 100 wells tapping the Wenonah Formation and Mount Laurel Sand indicate yields up to 200 gpm. Specific capacities of the wells range from 0.4 to 20 gpm per ft of drawdown and average 5 gpm per ft of drawdown. The wells range in depth from 35 to 200 feet below the land surface and are less than 100 feet deep in and near the outcrop area.

The Wenonah Formation and Mount Laurel Sand in Gloucester County is recharged mostly by interformational leakage through the overlying Navesink Formation. Some recharge is contributed by precipitation on the outcrop area, but it is minor and is important only to shallow water-table wells. The map showing contours on the piezometric surface of the Wenonah Formation and Mount Laurel Sand suggests two high-level intake areas down dip from the outcrop area (fig. 7). From the high-level intake area 3 miles west of Mullica Hill, some of the ground water moves southwestward toward Oldmans Creek and into Salem County and some moves eastward toward Raccoon Creek. The recharge area from Ewan through Pitman to Turnersville is near the topographic high which separates the Delaware River basin from the Atlantic Ocean drainage. Water moves from this high-level intake area to Raccoon and Mantua Creeks. Also, some water moves eastward to the south branch of Big Timber Creek and possibly into Camden County. In the area south of Mullica Hill to the Salem County line, a ground-water trough receives water from the two high-level intake areas.

In Gloucester County the Wenonah Formation and Mount Laurel Sand yield adequate quantities of water for domestic and farm use. Public water supply wells tapping this aquifer have been abandoned at Sewell and Pitman, although a small public water company east of Pitman pumps some water from this aquifer. In the east-central part of the county from Pitman to Turnersville, yields of 200 gpm are available and 300 to 400 gpm may be obtained under favorable conditions. Total pumpage of ground water from the Wenonah Formation and Mount Laurel Sand in 1957 was less than 1 mgd.

The rate of ground water withdrawal from this aquifer is small and the static water levels range from 40 to 100 feet above mean sea level. If pumping of ground water from the Wenonah Formation and Mount

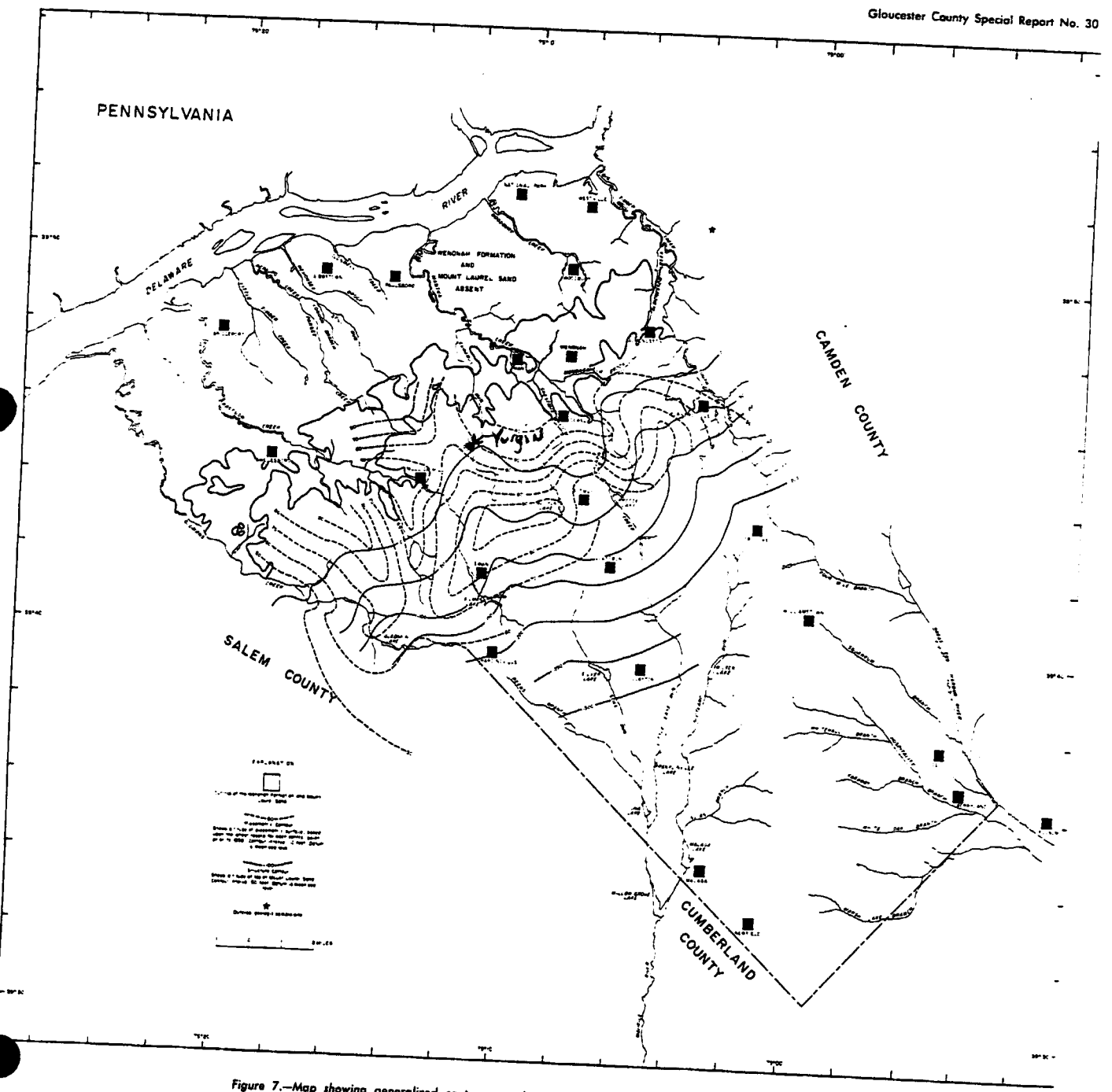


Figure 7.—Map showing generalized contours on the piezometric surface of the Wenonah Formation and Mount Laurel Sand and generalized structure contours on top of the Mount Laurel Sand

REFERENCE NO. 8

Friday
December 14, 1990

Part II

**Environmental
Protection Agency**

40 CFR Part 300
Hazard Ranking System; Final Rule

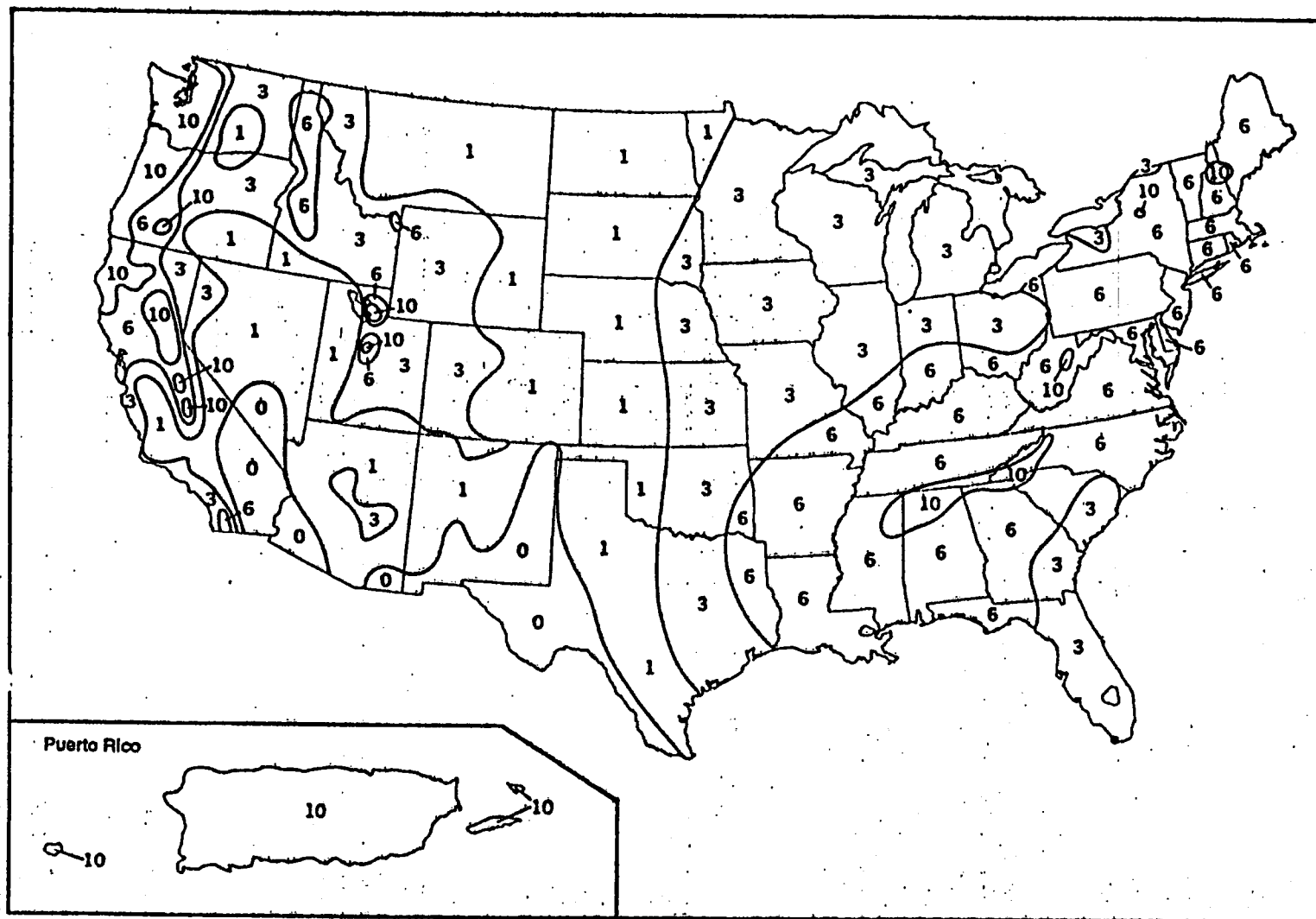


FIGURE 3-2
NET PRECIPITATION FACTOR VALUES

-When measured monthly evapotranspiration is not available, calculate monthly potential evapotranspiration (E_p) as follows:

$$E_p = 0.6 F_i (10 T_i / I)^a$$

where:

E_p = Monthly potential evapotranspiration (inches) for month i .

F_i = Monthly latitude adjusting value for month i .

T_i = Mean monthly temperature ($^{\circ}\text{C}$) for month i .

$$I = \sum_{i=1}^{12} (T_i/5)^{1.514}$$

$$a = 6.75 \times 10^{-7} I^2 - 7.71 \times 10^{-5} I^2 + 1.79 \times 10^{-2} I + 0.49239$$

Select the latitude adjusting value for each month from Table 3-3. For latitudes lower than 50° North or 20° South, determine the monthly latitude adjusting value by interpolation.

• Calculate monthly net precipitation by subtracting monthly evapotranspiration (or

monthly potential evapotranspiration) from monthly precipitation. If evapotranspiration (or potential evapotranspiration) exceeds precipitation for a month, assign that month a net precipitation value of 0.

• Calculate the annual net precipitation by summing the monthly net precipitation values.

• Based on the annual net precipitation, assign a net precipitation factor value from Table 3-4.

Enter the value assigned from Figure 3-2 or from Table 3-4, as appropriate, in Table 3-1.

TABLE 3-3.—MONTHLY LATITUDE ADJUSTING VALUES*

Latitude* (degrees)	Month											
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
≥ 50 N	0.74	0.78	1.02	1.15	1.33	1.36	1.37	1.25	1.06	0.92	0.76	0.70
45 N	0.80	0.81	1.02	1.13	1.28	1.29	1.31	1.21	1.04	0.94	0.79	0.75
40 N	0.84	0.83	1.03	1.11	1.24	1.25	1.27	1.18	1.04	0.96	0.83	0.81
35 N	0.87	0.85	1.03	1.09	1.21	1.21	1.23	1.16	1.03	0.97	0.89	0.85
30 N	0.90	0.87	1.03	1.08	1.18	1.17	1.20	1.14	1.03	0.98	0.89	0.88
20 N	0.95	0.90	1.03	1.05	1.13	1.11	1.14	1.11	1.02	1.00	0.93	0.94
10 N	1.00	0.91	1.03	1.03	1.08	1.06	1.08	1.07	1.02	1.02	0.98	0.99
0	1.04	0.94	1.04	1.01	1.04	1.01	1.04	1.04	1.01	1.04	1.01	1.04
10 S	1.08	0.97	1.05	0.99	1.00	0.96	1.00	1.02	1.00	1.06	1.05	1.09
20 S	1.14	0.99	1.05	0.97	0.96	0.91	0.95	0.99	1.00	1.08	1.09	1.15

* Do not round to nearest integer.

* For unfisted latitudes lower than 50° North or 20° South, determine the latitude adjusting value by interpolation.

TABLE 3-4.—NET PRECIPITATION FACTOR VALUES

Net precipitation (inches)	Assigned value
0	0
Greater than 0 to 5	1
Greater than 5 to 15	3
Greater than 15 to 30	6
Greater than 30	10

3.1.2.3 Depth to aquifer. Evaluate depth to aquifer by determining the depth from the lowest known point of hazardous substances at a site to the top of the aquifer being evaluated, considering all layers in that interval. Measure the depth to an aquifer as the distance from the surface to the top of the aquifer minus the distance from the surface to the lowest known point of hazardous substances eligible to be evaluated for that aquifer. In evaluating depth to aquifer in karst terrain, assign a thickness of 0 feet to a karst aquifer that underlies any portion of the sources at the site. Based on the calculated depth, assign a value from Table 3-5 to the depth to aquifer factor.

Determine the depth to aquifer only at locations within 2 miles of the sources at the site, except: if observed ground water

contamination attributable to sources at the site extends more than 2 miles beyond these sources, use any location within the limits of this observed ground water contamination when evaluating the depth to aquifer factor for any aquifer that does not have an observed release. If the necessary geologic information is available at multiple locations, calculate the depth to aquifer at each location. Use the location having the smallest depth to assign the factor value. Enter this value in Table 3-1.

TABLE 3-5.—DEPTH TO AQUIFER FACTOR VALUES

Depth to aquifer* (feet)	Assigned value
Less than or equal to 25	5
Greater than 25 to 250	3
Greater than 250	1

* Use depth of all layers between the hazardous substances and aquifer. Assign a thickness of 0 feet to any karst aquifer that underlies any portion of the sources at the site.

3.1.2.4 Travel time. Evaluate the travel time factor based on the geologic materials in the interval between the lowest known point of hazardous substances at the site and the

top of the aquifer being evaluated. Assign a value to the travel time factor as follows:

• If the depth to aquifer (see section 3.1.2.3) is 10 feet or less, assign a value of 35.

• If, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.

• Otherwise:

-Select the lowest hydraulic conductivity layer(s) from within the above interval. Consider only layers at least 3 feet thick. However, do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

-Determine hydraulic conductivities for individual layers from Table 3-6 or from in-situ or laboratory tests. Use representative, measured, hydraulic conductivity values whenever available.

-If more than one layer has the same lowest hydraulic conductivity, include all such layers and sum their thicknesses. Assign a thickness of 0 feet to a karst layer that underlies any portion of the sources at the site.

-Assign a value from Table 3-7 to the travel time factor, based on the thickness and hydraulic conductivity of the lowest hydraulic conductivity layer(s).

TABLE 3-6.—HYDRAULIC CONDUCTIVITY OF GEOLOGIC MATERIALS

Type of material	Assigned hydraulic conductivity* (cm/sec)
Clay; low permeability till (compact unfractured till); shale; unfractured metamorphic and igneous rocks	10^{-8} 10^{-8}
Silt; loesses; silty clays; sediments that are predominantly silts; moderately permeable till (fine-grained, unconsolidated till, or compact till with some fractures); low permeability limestones and dolomites (no karst); low permeability sandstone; low permeability fractured igneous and metamorphic rocks	10^{-6} 10^{-6}
Sands; sandy silts; sediments that are predominantly sand; highly permeable till (coarse-grained, unconsolidated or compact and highly fractured); peat; moderately permeable limestones and dolomites (no karst); moderately permeable sandstone; moderately permeable fractured igneous and metamorphic rocks	10^{-4} 10^{-4}
Gravel; clean sand; highly permeable fractured igneous and metamorphic rocks; permeable basalt; karst limestones and dolomites	10^{-2} 10^{-2}

* Do not round to nearest integer.

TABLE 3-7.—TRAVEL TIME FACTOR VALUES *

Hydraulic conductivity (cm/sec)	Thickness of lowest hydraulic conductivity layer(s)* (feet)			
	Greater than 3 to 5	Greater than 5 to 100	Greater than 100 to 500	Greater than 500
Greater than or equal to 10^{-2}	35	35	35	25
Less than 10^{-2} to 10^{-3}	35	25	15	15
Less than 10^{-3} to 10^{-4}	15	15	5	5
Less than 10^{-4}	5	5	1	1

* If depth to aquifer is 10 feet or less or if, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.

* Consider only layers at least 3 feet thick. Do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

Determine travel time only at locations within 2 miles of the sources at the site, except: if observed ground water contamination attributable to sources at the site extends more than 2 miles beyond these sources, use any location within the limits of this observed ground water contamination when evaluating the travel time factor for any aquifer that does not have an observed release. If the necessary subsurface geologic information is available at multiple locations, evaluate the travel time factor at each location. Use the location having the highest travel time factor value to assign the factor value for the aquifer. Enter this value in Table 3-1.

3.1.2.5 Calculation of potential to release factor value. Sum the factor values for net precipitation, depth to aquifer, and travel time, and multiply this sum by the factor value for containment. Assign this product as the potential to release factor value for the aquifer. Enter this value in Table 3-1.

3.1.3 Calculation of likelihood of release factor category value. If an observed release is established for an aquifer, assign the observed release factor value of 550 as the

likelihood of release factor category value for that aquifer. Otherwise, assign the potential to release factor value for that aquifer as the likelihood of release value. Enter the value assigned in Table 3-1.

3.2 Waste characteristics. Evaluate the waste characteristics factor category for an aquifer based on two factors: toxicity/mobility and hazardous waste quantity. Evaluate only those hazardous substances available to migrate from the sources at the site to ground water. Such hazardous substances include:

- Hazardous substances that meet the criteria for an observed release to ground water.

- All hazardous substances associated with a source that has a ground water containment factor value greater than 0 (see sections 2.2.2, 2.2.3, and 3.1.2.1).

3.2.1 Toxicity/mobility. For each hazardous substance, assign a toxicity factor value, a mobility factor value, and a combined toxicity/mobility factor value as specified in the following sections. Select the toxicity/mobility factor value for the aquifer being evaluated as specified in section 3.2.1.3.

3.2.1.1 Toxicity. Assign a toxicity factor value to each hazardous substance as specified in Section 2.4.1.1.

3.2.1.2 Mobility. Assign a mobility factor value to each hazardous substance for the aquifer being evaluated as follows:

- For any hazardous substance that meets the criteria for an observed release by chemical analysis to one or more aquifers underlying the sources at the site, regardless of the aquifer being evaluated, assign a mobility factor value of 1.

- For any hazardous substance that does not meet the criteria for an observed release by chemical analysis to at least one of the aquifers, assign that hazardous substance a mobility factor value from Table 3-8 for the aquifer being evaluated, based on its water solubility and distribution coefficient (K_d).

- If the hazardous substance cannot be assigned a mobility factor value because data on its water solubility or distribution coefficient are not available, use other hazardous substances for which information is available in evaluating the pathway.

TABLE 3-8.—GROUND WATER MOBILITY FACTOR VALUES *

Water solubility (mg/l)	Distribution coefficient (K_d) (ml/g)			
	Karst*	≤ 10	> 10 to 1,000	$> 1,000$
Present as liquid ^b	1	1	0.01	0.0001
Greater than 100	1	1	0.01	0.0001
Greater than 1 to 100	0.2	0.2	0.002	2×10^{-3}
Greater than 0.01 to 1	0.002	0.002	2×10^{-3}	2×10^{-3}
Less than or equal to 0.01	2×10^{-3}	2×10^{-3}	2×10^{-3}	2×10^{-3}

* Do not round to nearest integer.

* Use if the hazardous substance is present or deposited as a liquid.

* Use if the entire interval from the source to the aquifer being evaluated is karst.

Drainage area. Determine the drainage area for the sources at the site. Include in this drainage area both the source areas and the area upgradient of the sources, but exclude any portion of this drainage area for which runoff is diverted from entering the sources by storm sewers or run-on control and/or runoff management systems. Assign a drainage area value for the watershed from Table 4-3.

Soil group. Based on the predominant soil group within the drainage area described above, assign a soil group designation for the watershed from Table 4-4 as follows:

- Select the predominant soil group as that type which comprises the largest total area within the applicable drainage area.
- If a predominant soil group cannot be delineated, select that soil group in the drainage area that yields the highest value for the runoff factor.

Calculation of runoff factor value. Assign a combined rainfall/runoff value for the watershed from Table 4-5, based on the 2-year, 24-hour rainfall and the soil group designation. Determine the runoff factor value for the watershed from Table 4-6, based on the rainfall/runoff and drainage area values. Enter the runoff factor value in Table 4-1.

TABLE 4-3.—DRAINAGE AREA VALUES

Drainage area (acres)	Assigned value
Less than 50	1
50 to 250	2
Greater than 250 to 1,000	3
Greater than 1,000	4

TABLE 4-4.—SOIL GROUP DESIGNATIONS

Surface soil description	Soil group designation
Coarse-textured soils with high infiltration rates (for example, sands, loamy sands).	A
Medium-textured soils with moderate infiltration rates (for example, sandy loams, loams).	B
Moderately fine-textured soils with low infiltration rates (for example, silty loams, silts, sandy clay loams).	C
Fine-textured soils with very low infiltration rates (for example, clays, sandy clays, silty clay loams, clay loams, silty clays); or impermeable surfaces (for example, pavement).	D

TABLE 4-5.—RAINFALL/RUNOFF VALUES

2-Year, 24-hour rainfall (inches)	Soil group designation			
	A	B	C	D
Less than 1.0	0	0	2	3
1.0 to less than 1.5	0	1	2	3
1.5 to less than 2.0	0	2	3	4
2.0 to less than 2.5	1	2	3	4
2.5 to less than 3.0	2	3	4	4
3.0 to less than 3.5	2	3	4	5
3.5 or greater	3	4	5	6

TABLE 4-6.—RUNOFF FACTOR VALUES

Drainage area value	Rainfall/runoff value						
	0	1	2	3	4	5	6
1	0	0	0	1	1	1	1
2	0	0	1	1	2	3	4
3	0	0	1	3	7	11	15
4	0	1	2	7	17	25	25

4.1.2.1.2.1.3 *Distance to surface water.* Evaluate the distance to surface water as the shortest distance, along the overland segment, from any source with a surface water containment factor value greater than 0 to either the mean high water level for tidal waters or the mean water level for other surface waters. Based on this distance, assign a value from Table 4-7 to the distance to surface water factor for the watershed. Enter this value in Table 4-1.

4.1.2.1.2.1.4 *Calculation of factor value for potential to release by overland flow.* Sum the factor values for runoff and distance to surface water for the watershed and multiply this sum by the factor value for containment. Assign the resulting product as the factor value for potential to release by overland flow for the watershed. Enter this value in Table 4-1.

4.1.2.1.2.2 *Potential to release by flood.* Evaluate potential to release by flood for each watershed as the product of two factors: containment (flood) and flood frequency. Evaluate potential to release by flood separately for each source that is within the watershed. Furthermore, for each source, evaluate potential to release by flood separately for each category of floodplain in which the source lies. (See section 4.1.2.1.2.2.2 for the applicable floodplain categories.) Calculate the value for the potential to release by flood factor as specified in 4.1.2.1.2.2.3.

4.1.2.1.2.2.1 *Containment (flood).* For each source within the watershed, separately evaluate the containment (flood) factor for each category of floodplain in which the source is partially or wholly located. Assign a containment (flood) factor value from Table 4-8 to each floodplain category applicable to that source. Assign a containment (flood) factor value of 0 to each floodplain category in which the source does not lie.

4.1.2.1.2.2.2 *Flood frequency.* For each source within the watershed, separately evaluate the flood frequency factor for each category of floodplain in which the source is partially or wholly located. Assign a flood frequency factor value from Table 4-9 to each floodplain category in which the source is located.

4.1.2.1.2.2.3 *Calculation of factor value for potential to release by flood.* For each source within the watershed and for each category of floodplain in which the source is partially or wholly located, calculate a separate potential to release by flood factor value. Calculate this value as the product of the containment (flood) value and the flood frequency value applicable to the source for the floodplain category. Select the highest value calculated for those sources that meet the minimum size requirement specified in section 4.1.2.1.2.1.1 and assign it as the value

for the potential to release by flood factor for the watershed. However, if, for this watershed, no source at the site meets the minimum size requirement, select the highest value calculated for the sources at the site eligible to be evaluated for this watershed and assign it as the value for this factor.

TABLE 4-7.—DISTANCE TO SURFACE WATER FACTOR VALUES

Distance	Assigned value
Less than 100 feet	25
100 feet to 500 feet	20
Greater than 500 feet to 1,000 feet	16
Greater than 1,000 feet to 2,500 feet	9
Greater than 2,500 feet to 1.5 miles	6
Greater than 1.5 miles to 2 miles	3

TABLE 4-8.—CONTAINMENT (FLOOD) FACTOR VALUES

Containment criteria	Assigned value
Documentation that containment at the source is designed, constructed, operated, and maintained to prevent a washout of hazardous substances by the flood being evaluated.	0
Other	10

TABLE 4-9.—FLOOD FREQUENCY FACTOR VALUES

Floodplain category	Assigned value
Source floods annually	50
Source in 10-year floodplain	50
Source in 100-year floodplain	25
Source in 500-year floodplain	7
None of above	0

Enter this highest potential to release by flood factor value for the watershed in Table 4-1, as well as the values for containment (flood) and flood frequency that yield this highest value.

4.1.2.1.2.3 *Calculation of potential to release factor value.* Sum the factor values assigned to the watershed for potential to release by overland flow and potential to release by flood. Assign this sum as the potential to release factor value for the watershed, subject to a maximum value of 500. Enter this value in Table 4-1.

4.1.2.1.3 *Calculation of drinking water threat-likelihood of release factor category value.* If an observed release is established for the watershed, assign the observed release factor value of 550 as the likelihood of release factor category value for that watershed. Otherwise, assign the potential to release factor value for that watershed as the likelihood of release factor category value for that watershed. Enter the value assigned in Table 4-1.

4.1.2.2 *Drinking water threat-waste characteristics.* Evaluate the waste characteristics factor category for each

the hazardous substance with the highest toxicity/persistence factor value for the watershed to assign the toxicity/persistence factor value for the drinking water threat for the watershed. Enter this value in Table 4-1.

4.1.2.2.2 *Hazardous waste quantity.* Assign a hazardous waste quantity factor

value for the watershed as specified in section 2.4.2. Enter this value in Table 4-1.

4.1.2.2.3 *Calculation of drinking water threat-waste characteristics factor category value.* Multiply the toxicity/persistence and hazardous waste quantity factor values for the watershed, subject to a maximum product

of 1×10^4 . Based on this product, assign a value from Table 2-7 (section 2.4.3.1) to the drinking water threat-waste characteristics factor category for the watershed. Enter this value in Table 4-1.

TABLE 4-12.—TOXICITY/PERSISTENCE FACTOR VALUES*

Persistence factor value	Toxicity factor value					
	10,000	1,000	100	10	1	0
1.0	10,000	1,000	100	10	1	0
0.4	4,000	400	40	4	0.4	0
0.07	700	70	7	0.7	0.07	0
0.0007	7	0.7	0.07	0.007	0.0007	0

* Do not round to nearest integer.

4.1.2.3 *Drinking water threat-targets.* Evaluate the targets factor category for each watershed based on three factors: nearest intake, population, and resources.

To evaluate the nearest intake and population factors, determine whether the target surface water intakes are subject to actual or potential contamination as specified in section 4.1.1.2. Use either an observed release based on direct observation at the intake or the exposure concentrations from samples (or comparable samples) taken at or beyond the intake to make this determination (see section 4.1.2.1.1). The exposure concentrations for a sample (that is, surface water, benthic, or sediment sample) consist of the concentrations of those hazardous substances present that are significantly above background levels and attributable at least in part to the site (that is, those hazardous substance concentrations that meet the criteria for an observed release).

When an intake is subject to actual contamination, evaluate it using Level I

concentrations or Level II concentrations. If the actual contamination is based on an observed release by direct observation, use Level II concentrations for that intake. However, if the actual contamination is based on an observed release from samples, determine which level applies for the intake by comparing the exposure concentrations from samples (or comparable samples) to health-based benchmarks as specified in sections 2.5.1 and 2.5.2. Use the health-based benchmarks from Table 3-10 (section 3.3.1) in determining the level of contamination from samples. For contaminated sediments with no identified source, evaluate the actual contamination using Level II concentrations [see section 4.1.1.2].

4.1.2.3.1 *Nearest intake.* Evaluate the nearest intake factor based on the drinking water intakes along the overland/flood hazardous substance migration path for the watershed. Include standby intakes in evaluating this factor only if they are used for supply at least once a year.

Assign the nearest intake factor a value as follows and enter the value in Table 4-1:

- If one or more of these drinking water intakes is subject to Level I concentrations as specified in section 4.1.2.3, assign a factor value of 50.

- If not, but if one or more of these drinking water intakes is subject to Level II concentrations, assign a factor value of 45.

- If none of these drinking water intakes is subject to Level I or Level II concentrations, determine the nearest of these drinking water intakes, as measured from the probable point of entry (or from the point where measurement begins for contaminated sediments with no identified source). Assign a dilution weight from Table 4-13 to this intake, based on the type of surface water body in which it is located. Multiply this dilution weight by 20, round the product to the nearest integer, and assign it as the factor value.

Assign the dilution weight from Table 4-13 as follows:

TABLE 4-13.—SURFACE WATER DILUTION WEIGHTS

Type of surface water body*		Assigned dilution weight ^b
Descriptor	Flow characteristics	
Minimal stream	Less than 10 cfs ^c	1
Small to moderate stream	10 to 100 cfs	0.1
Moderate to large stream	Greater than 100 to 1,000 cfs	0.01
Large stream to river	Greater than 1,000 to 10,000 cfs	0.001
Large river	Greater than 10,000 to 100,000 cfs	0.0001
Very large river	Greater than 100,000 cfs	0.00001
Coastal tidal waters ^d	Flow not applicable, depth not applicable	0.0001
Shallow ocean zone ^e or Great Lake	Flow not applicable, depth less than 20 feet	0.0001
Moderate depth ocean zone ^e or Great Lake	Flow not applicable, depth 20 to 200 feet	0.00001
Deep ocean zone ^e or Great Lake	Flow not applicable, depth greater than 200 feet	0.000005
3-mile mixing zone in quiet flowing river	10 cfs or greater	0.5

* Treat each lake as a separate type of water body and assign a dilution weight as specified in text.

^b Do not round to nearest integer.

^c cfs = cubic feet per second.

^d Embayments, harbors, sounds, estuaries, back bays, lagoons, wetlands, etc., seaward from mouths of rivers and landward from baseline of Territorial Sea.

^e Seaward from baseline of Territorial Sea. This baseline represents the generalized U.S. coastline. It is parallel to the seaward limit of the Territorial Sea and other maritime limits such as the inner boundary of the Federal fisheries jurisdiction and the limit of States jurisdiction under the Submerged Lands Act, as amended.

- For a river (that is, surface water body types specified in Table 4-13 as minimal stream through very large river), assign a dilution weight based on the average annual flow in the river at the intake. If available,

use the average annual discharge as defined in the U.S. Geological Survey Water Resources Data Annual Report. Otherwise, estimate the average annual flow.

- For a lake, assign a dilution weight as follows:

- For a lake that has surface water flow entering the lake, assign a dilution weight based on the sum of the

REFERENCE NO. 9

PHONE CONVERSATION RECORD

Conversation with:

Date 10 / 18 / 96

Name Kimberly Lennio

Time 2:20 AM PM

Company NJ DEP, Bureau of Environmental Planning

Address 401 East State Street

☐ Originator Placed Call

Trenton, NJ 08635

☒ Originator Received Call

Phone (609) 633-1179

W.O. NO. 1194

Subject Wellhead Protection Areas

Notes: Ms. Lennio returned the calls I had made to Dan Van
Abs of the above office regarding the establishment of
wellhead protection areas in New Jersey. She said that
wellhead protection areas had not yet been officially
delineated, as the regulations had not yet been promulgated.
The Wellhead Protection Program Plan was approved by the
DEP and EPA in December 1991 - this document is the plan of
action that is being used to actually develop the delineations.
Tom McKee of the Bureau of Environmental Planning is working
on writing the rules and regulations in conjunction with Steve
Spoke of the New Jersey Geological Survey, who is actually
drawing up the delineations (the latter can be reached at 609-
6587. The NJGS will be establishing WHPAs for public supply
wells; nonpublic community supply wells may be addressed by
the individual municipalities involved. After the rules and
regulations have been promulgated, the Wellhead Protection Areas
delineated by the NJGS/Bureau of Env. Planning will be subject
to a public hearing process for formal adoption. For more
details, she suggested we speak with Tom McKee at the phone
number above.

☒ File National Standard Co.
TDS No. 02-0602-0102A

☐ Tickle File / /

☐ Follow-Up By:

☒ Copy/Route To: Dennis Foerster
Joe Filosa

Follow-Up Action:

Originator's Initials 

REFERENCE NO. 10

REFERENCE NO. 11

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
TO:	Yurgin Motors File	
DATE:	1/10/97	
FROM:	Dennis Foerter	
SUBJECT:	Surface Water Migration Pathway - Yurgin Motors Site	
<p>An evaluation of the surface water migration pathway for the Yurgin Motors site indicates that the 15-mile target distance limit (TDL) is comprised of the Edwards Run, the Mantua Creek and the Delaware River. There is no clear runoff route from the site sources to surface water, however, the nearest downslope surface water body is an intermittent unnamed tributary to the Edwards Run, locate 0.25 mile from the site. The probable point of entry (PPE) to surface water is located at the point where the tributary enters the Edwards Run, approximately 0.75 mile from the site. The evaluation of the surface water pathway of the Yurgin Motors site further documented the following:</p> <ul style="list-style-type: none"> • The attached correspondence between Roy F. Weston, Inc. and the NJDEP Water Supply Element documents that there are <i>no potable surface water intakes</i> within the 15-mile surface water pathway for the Yurgin Motors site. • The attached phone conversation record between Region II START and the NJDEP Division of Fish, game and Wildlife documents that the Edwards Run, Mantua Creek and Delaware River are <i>fisheries</i> (i.e., fished for human consumption). The species fished for within each water body are listed in the attached record. • Flow data for the Edwards Run was not available from the NJDEP nor from EPA's STORET System. Therefore, for the purposes of this report, a conservative flow rate of less than 10 cubic feet per second (cfs) was given for the Edwards Run. National Wetland Inventory (NWI) maps indicate that the portion of the Mantua Creek within the TDL is tidal, with the flow rate at the mouth of the Delaware River being 76 cfs (see attached USGS correspondence). The portion of the Delaware River within the site's TDL is also tidal; the estimated flow of the Delaware upstream of the Mantua Creek is 17,000 cfs. • Publications (Surface Water Quality Standards N.J.A.C. 7.9B) indicate that the Edwards Run and Mantua Creek are used for the maintenance, migration and propagation of natural and established biota; therefore, these waterways will be evaluated as sensitive environments under the HRS. 		
<p>Signature/Date <u>Dan [Signature] 1/10/97</u></p>		

PHONE CONVERSATION RECORD

Conversation with:

Name Hugh Carberry
Company MSDEP - Div. of Fish and Wildlife
Address _____
Phone (609) 629-4950
Subject Fisheries - Yogan Motor site

Date 1 / 15 / 97
Time 1015 (AM) PM

☒ Originator Placed Call

☐ Originator Received Call

W.O. NO. 11028-111-002-1465

Notes: Mr. Carberry informed me that The Mantua Creek, Edwards Run, and Delaware River are all fisheries and are fished for human consumption. The following species can be found in all three bodies of water.

- channel catfish
- white catfish
- Red breasted sunfish
- large Mouth Bass

There is no data for the intermittent tributary 0.25 mile east of the site, which discharges to the Edwards Run.

Dennis Foerster
1/15/97

- ☐ File _____
- ☐ Tickle File _____ / _____ / _____
- ☐ Follow-Up By: _____
- ☐ Copy/Route To: _____

Follow-Up-Action: _____

Originator's Initials _____



State of New Jersey
Department of Environmental Protection and Energy

Water Supply Element
CN 426

Trenton, NJ 08625-0426
Tel. # 609-292-7219
Fax. # 609-292-1654

SEP 17 1993

Jeanne M. Fox
Acting Commissioner

SEPTEMBER 15, 1993
Steven P. Nieswand, P.E.
Administrator

Weston
Raritan Plaza 1
4th Floor, Raritan Center
Edison, New Jersey 08837-3616

Att: Thomas A. Varner, Site Assessment Manager

Dear Mr. Varner:

Re: Surface Water Intakes

This is in regard to your letter of September 9, 1993 requesting information on surface water intakes within fifteen miles of two particular sites. You had further indicated that the intakes could be of a commercial, agricultural or potable nature. Please be advised that the Bureau of Safe Drinking Water (Bureau) regulates only Public Water Supplies as defined in the Safe Drinking Water Act. You may wish to contact the Bureau of Water Allocation at (609) 292-2957 for intakes other than those regulated by this Bureau.

Commercial
agriculture

Rather than perform an analysis of the intakes, I have attached for your use copies of this Bureau's inventory of potable water intakes and an accompanying list with latitudes and longitudes of the intakes as per the information available to us.

If you should have any questions on the attached information, please call me at (609) 292-5550.

Very Truly Yours,

John F. Fields
Supervising Environmental Engineer
Compliance Section

attach

c Thomas McCarthy

PURVEYOR

601926

10

LONG/LAT

LOCALITY	WATER SUPPLY	WATER BODY	WATER BODY	WATER BODY
ATLANTIC CITY	ATLANTIC CITY WATER DEPT.	DOUGHTY RESERVOIR	0102001	74 37 47 10 39 57 36.08
NEW MILFORD	HACKENSACK WATER CO.	ORADELL RESERVOIR	0238001	74 1 28.55 40 57 28.44
NEW MILFORD	HACKENSACK WATER CO.	HACKENSACK RIVER	0238001	74 1 36.64 40 56 47.63
CITY OF BURLINGTON	BURLINGTON CITY WATER DEPT.	DELAWARE RIVER (EXISTING)	0305001	74 50 21.82 40 5 19.78
CITY OF BURLINGTON	BURLINGTON CITY WATER DEPT.	DELAWARE RIVER (FUTURE)	0305001	74 50 36.07 40 5 14.45
CALDWELL TOWNSHIP	N. J. D. W. S. C.	POMPTON RIVER	1613001	74 16 22.79 40 53 58.59
CALDWELL TOWNSHIP	ORANGE WATER DEPT.	WILKINSON RIVER	0717001	74 17 19.48 40 45 33.65
COMMONWEALTH TOWNSHIP	COMMONWEALTH WATER DEPT.	PASSAIC RIVER	0712001	74 21 56.16 40 44 42.88
COMMONWEALTH TOWNSHIP	COMMONWEALTH WATER DEPT.	CANOE BROOK	0712001	74 21 13.31 40 44 40.77
NEWARK	NEWARK	PEQUANNOCK WATER SHED	0714001	74 25 27.07 41 1 32.44
GREENWICH TOWNSHIP	DUPONT-REPAUND PNT-QBBSTWN	DELAWARE RIVER	75 18 23.02	39 50 34.97
JERSEY CITY	JERSEY CITY DIV. OF WATER	RODENTON RESERVOIR	0906001	74 23 51.41 40 53 33.80
BOROUGH OF BLOOMSBURY	BOROUGH OF BLOOMSBURY	RYNE HOLLOW (*)	1003001	75 14 42.46 40 38 48.50
CITY OF LAMBERTVILLE	LAMBERTVILLE WATER CO.	SWAN CREEK RES. EAST	1017001	74 55 28.18 40 21 40.52
CITY OF LAMBERTVILLE	LAMBERTVILLE WATER CO.	SWAN CREEK RES. WEST	1017001	74 55 43.90 40 21 46.63
CITY OF LAMBERTVILLE	LAMBERTVILLE WATER CO.	DELA.-RAR. CANAL (*)	1214001	74 56 46.94 40 21 55.90
TRENTON	CITY OF TRENTON	DELAWARE RIVER	1111001	74 46 45.57 40 13 19.06
CITY OF PERTH AMBOY	PERTH AMBOY WATER DEPT.	TENNENTS CK. (RECHARGE)	1216001	74 20 12.23 40 25 33.99
EDISON TOWNSHIP	MIDDLESEX WATER CO.	RARITAN RIVER	1225001	74 26 32.12 40 30 2.46
NEW BRUNSWICK	NEW BRUNSWICK WATER DEPT.	LAWRENCE BROOK	1214001	74 24 45.97 40 28 58.48
NO. BRUNSWICK TWP.	TWP. OF NO. BRUNSWICK	DELA.-RAR. CANAL	1214001	74 34 59.03 40 27 38.49
SAYREVILLE	SAYREVILLE WATER DEPT.	SOUTH RIVER (RECHARGE)	1219001	74 21 41.75 40 24 58.99
WOODBIDGE	MIDDLESEX WATER CO.	DELA.-RAR. CANAL	1225001	74 27 34.00 40 30 25.66
HOWELL TWP.	N. J. WATER SUPP. AUTH.	MANASQUAN RIV. (PROPOSED)	1352005	74 11 27.43 40 10 31.82
HOWELL TWP.	N. J. WATER SUPP. AUTH.	MANASQUAN RIV. (PROPOSED)	1352005	74 7 18.84 40 8 44.98
LONG BRANCH TWP.	MONMOUTH CONSOLID. WAT. CO.	SHARK RIVER	1345001	74 4 16.51 40 11 53.69
LONG BRANCH	MONMOUTH CONSOLID. WAT. CO.	JUMPING BROOK	1345001	74 3 57.82 40 12 11.83
MANALAPAN TWP.	MATCHAPONIX WAT. SUPP. CO.	MATCHAPONIX BROOK	1326004	74 21 50.42 40 18 33.20
SHREWSBURY	MONMOUTH CONSOLID. WAT. CO.	SWIMMING RIVER RES.	1345001	74 7 13.35 40 19 6.70
WALL TOWNSHIP	MONMOUTH CONSOLID. WAT. CO.	MANASQUAN RIV. GLENDOLA RES.	1345001	74 4 45.13 40 11 42.67
BOROUGH OF BRIDGEWATER	BRIDGEWATER WATER DEPT.	INDIANA RESERVOIR	1613001	74 16 22.79 40 53 58.59
BOROUGH OF BRIDGEWATER	BRIDGEWATER WATER DEPT.	MAKEDON RESERVOIR	1613001	74 21 56.16 40 44 42.88
JEFFERSON TWP.	JEFFERSON TWP. M. U. A.	LAKE SHAWNEE (*)	1414001	74 35 50.64 40 58 12.04
TOWN OF BOONTON	TOWN OF BOONTON	TAYLORTOWN RESERVOIR	1401001	74 23 0.06 40 57 13.06
TOWN OF MORRISTOWN	SOUTHEAST MORRIS COUNTY	CLYDE POTTS RESERVOIR	1420001	74 34 51.90 40 48 21.61
BOROUGH OF HADDON	HADDON WATER DEPT.	NETEDON RIVER	1603001	74 16 22.79 40 53 58.59
BOROUGH OF HADDON	HADDON WATER DEPT.	HADDON RIVER	1603001	74 16 22.79 40 53 58.59
POMPTON LAKES	N. J. D. W. S. C.	RAMAPO RIVER	1613001	74 16 54.91 40 58 17.93
WANAGUE BOROUGH	N. J. D. W. S. C.	RAMAPO RIVER	1613001	74 16 44.68 40 59 33.45
WANAGUE BOROUGH	N. J. D. W. S. C.	WANAGUE RESER.	1613001	74 17 39.54 41 2 47.67
BRANCHVILLE TWP.	BRANCHVILLE WATER DEPT.	BALEM CANAL (NON-COMM.)	0000000	75 30 19.63 39 41 8.91
BRANCHVILLE BOROUGH	BRANCHVILLE WATER DEPT.	BALEM CANAL (NON-COMM.)	0000000	75 30 19.63 39 41 8.91
FRANKLIN BOROUGH	FRANKLIN WATER COMMISSION	WALLKILL R. (FRANKLIN PND.)	1906002	74 35 20.05 41 6 41.79
FRANKLIN BOROUGH	FRANKLIN WATER COMMISSION	WALLKILL R. (FRANKLIN PND.)	1906002	74 34 17.07 41 8 14.40
NEWTOWN	NEWTOWN WATER DEPARTMENT	LAKE MORRIS	1815001	74 34 24.58 41 2 31.05
NEWTOWN	NEWTOWN WATER DEPARTMENT	LAKE MORRIS	1815001	74 34 24.58 41 2 31.05
NEWTOWN	NEWTOWN WATER DEPARTMENT	LAKE MORRIS	1815001	74 34 24.58 41 2 31.05

SURFACE WATER IN NEW JERSEY PUBLIC SUPPLY

SURVEYOR

SOURCE

LONG/LAT

UNIT	CITY OF RAHWAY	RAHWAY WATER DEPARTMENT	RAHWAY RIVER	2013001	74 17 28.57	40 32 8.41
ELIZABETH	ELIZABETH TOWN WATER CO.	RARITAN RIVER	2004002	74 34 6.28	40 32 45.58	
ELIZABETH	ELIZABETH TOWN WATER CO.	MILLSTONE RIVER	2004002	74 34 10.91	40 32 31.02	
ELIZABETH	ELIZABETH TOWN WATER CO.	CONFL. OF RAR. & MILL. RVRG.	2004003	74 34 1.82	40 32 33.33	
HACKETTSTOWN	HACKETTSTOWN M. U. A.	LOWER MINE HILL RESERVOIR	2108001	74 47 41.62	40 51 23.77	
HACKETTSTOWN	HACKETTSTOWN M. U. A.	BURD RESERVOIR	2108001	74 48 1.64	40 50 27.91	
TOWN OF BELVIDERE	BUCKHORN SPRINGS WATER CO.	IMBOUND RES. ON BUCKHORN CK.	2103001	75 4 20.99	40 47 58.03	
WASHINGTON	NEW JERSEY WATER CO.	BOARDING ROCK CK. RES. (*)	2102001	75 1 48.22	40 45 55.70	

SURFACE WATER INTAKE LOCATIONS

BUREAU OF SAFE DRINKING WATER

Prepared by: Michael Mariano

CENTRAL

TRENTON
BURL CITY
NEW BRUNSWICK
HILLSBORO
HUNTSVILLE

BRICK
HUNTSVILLE
HUNTSVILLE
HUNTSVILLE
HUNTSVILLE
HUNTSVILLE

STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER
MARCH 1992

PWSID#	PURVEYOR NAME	PHONE NUMBER	INTAKE MUNICIPALITY	INTAKE LOCATION
0102001	ATLANTIC CITY WATER DEPARTMENT	609-345-3315	ABSECON	DOUGHTY POND - South tip - Mays Landing Rd. & Mill Rd.
0238001	HACKENSACK WATER DEPARTMENT	201-767-9300	PARAMUS	SADDLE RIVER - South of intersection of Paramus Rd. & Midland Ave.
			ORADELL	HACKENSACK RIVER - At Martin Ave.
			NORTHVALE	SPARK HILL CREEK - Northwest of intersection of Pegasus Ave. & Hill Terr.
			ORADELL	LONG SWAMP BROOK - At Martin Ave.
0305001	BURLINGTON CITY WATER DEPARTMENT	609-386-0307	EAST BURLINGTON	DELAWARE RIVER - 1/4 mile north of Assiscunk Creek
			BURLINGTON ISLAND	BURLINGTON ISLAND LAKE
0325001	PORT DIX	609-542-5040		RANCOCAS CREEK
1613001	NJDWSC	201-575-0225	POMPTON LAKES	RAMAPO RIVER - At Pompton Lake (pump to Wanaque Res.)
			WANAQUE	WANAQUE RESERVOIR - Ringwood Ave & Oricchio Ave
0717001	CITY OF ORANGE	201-762-6000	SOUTH ORANGE	ORANGE RESERVOIR - On West branch of Rahway River 40 ft upstream from dam

STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER
MARCH 1992

PWSID#	SURVEYOR NAME	PHONE NUMBER	INTAKE MUNICIPALITY	INTAKE LOCATION
0712001	NJ AMERICAN NORTHERN DISTRICT	201-376-8800	HILLBURN	PASSAIC RIVER - At Kennedy Parkway
			SHORT HILLS	CANOE BROOK - North of Route 24
			CALDWELL	POMPTON RIVER - At Bridges Rd.
0714001	NEWARK WATER DEPT	201-256-4965		PEQUANNOCK WATER SHED
0906001	JERSEY CITY WATER DEPARTMENT	201-547-4390	BOONTON	BOONTON RESERVOIR - 200 yds northwest of Washington St Bridge
			ROCKAWAY	SPLIT ROCK RESERVOIR - Empties into Boonton Res. via Rockaway River
1017001	LAMBERTVILLE WATER DEPARTMENT	609-397-0526	LAMBERTVILLE	SWAN CREEK RESERVOIR EAST
			LAMBERTVILLE	SWAN CREEK RESERVOIR WEST
			LAMBERTVILLE	DELAWARE-RARITAN CANAL - At Swan St. (Emergency)
1111001	CITY OF TRENTON	609-989-3208	TRENTON	DELAWARE RIVER - At Rt 29 north of Calhoun St. Bridge
1216001	PERTH AMBOY	908-826-0290	OLD BRIDGE	TENNENTS POND - At Waterworks Rd.
1225001	MIDDLESEX WATER CO	908-634-1500	EDISON	DELAWARE-RARITAN CANAL & MILLSTONE RIVER - At Rt 18

STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER
MARCH 1992

PWSID#	PURVEYOR NAME	PHONE NUMBER	INTAKE MUNICIPALITY	INTAKE LOCATION
1214001	NEW BRUNSWICK WATER DEPARTMENT	908-745-5060	NEW BRUNSWICK	LAWRENCE BROOK - At Burnet S. St.
			NEW BRUNSWICK	DELAWARE-RARITAN CANAL - At George St & College Ave
1214001	NORTH BRUNSWICK	908-247-0922	FRANKLIN TWP	DELAWARE-RARITAN CANAL - At Suydan Ave.
1219001	SAVERVILLE	908-390-7000	OLD BRIDGE	SOUTH RIVER - At Main St North of Rt 18
1352005	NEW JERSEY WATER SUPPLY AUTH.		WALL TWP	MANASQUAN RIVER - Hospital Rd. North of Garden State Parkway (Pump to Manasquan Resevior)
1345001	NJ AMERICAN - MONTMOUTH		WALL TWP	MANASQUAN RIVER - Hospital Rd. North of GSP (Pump to Glendola Reservoir)
			NEPTUNE TWP	SHARK RIVER - Off Corlies Ave. 2000' North of GSP
			NEPTUNE TWP	JUMPING BROOK - At Greensgrove & Corlies Aves
			LINCROFT	SWINNING RIVER RESERVOIR - 1000' West of Swinning Riv.
1326004	HATCHAPONIX		MANALAPAN	HATCHAPONIX BROOK - At Wilson Ave.
1401001	TOWN OF BOONTON	201-299-7740	MONTVILLE	TAYLORTOWN RESERVOIR - At Taylortown Rd.

STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER
MARCH 1992

PWSID#	PURVEYOR NAME	PHONE NUMBER	INTAKE MUNICIPALITY	INTAKE LOCATION
1403001	BUTLER WATER DEPT	201-838-7200	BUTLER	KIKKROUT RESERVOIR - At Resevior Rd.
1424001	SOUTH EAST MORRIS COUNTY	201-538-5600	MENDHAM	CLYDE POTTS RESERVOIR - Cold Hill Rd & Woodland Rd
1506001	BRICK TWP	908-458-7000		NETEDECONK RIVER
1603001	HALEDON WATER DEPT		HALEDON	HALEDON RESERVOIR - Lower Basin pump station at Belmont Ave.
1605002	PASSAIC VALLEY WATER COMMISSION	201-256-1566	WAYNE	POMPTON RIVER - At Confluence of Ramapo & Pequannock Rivers
			TOTOWA	PASSAIC RIVER - At Union Blvd.
1708300	E.I. DUPONT PENNSVILLE	609-299-5000		SALEM CANAL
1712001	SALEM WATER DEPT	609-935-0350	CLINTON TWP	LAUREL LAKE - At Waterworks Rd & Lake Ave.
			ALLOWAY TWP	ELKINTON HILL POND - Waterworks Rd. 3 miles east of Laurel Lake (Seasonal)
1903001	BRANCHVILLE WATER DEPARTMENT	201-948-6463	FRANKFORD TWP	BRANCHVILLE RESERVOIR - 7300' norhteast of Mattison Ave & Mattison School Rd.
1906002	FRANKLIN WATER DEPT	201-827-7060	FRANKLIN BOROUGH	FRANKLIN POND - Franklin Ave. Across from plant
1915001	NEWTON WATER DEPT	201-383-3521	SPARTA TWP	MORRIS LAKE

STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER
MARCH 1992

PWSID#	PURVEYOR NAME	PHONE NUMBER	INTAKE MUNICIPALITY	INTAKE LOCATION
1921001	SUSSEX WATER DEPT	201-967-5622	WANTAGE TWP	COLESVILLE RESERVOIR - At Brink Rd. 400' west of Rt. 23
2013001	RAHWAY WATER DEPT	201-388-0086	RAHWAY	RAHWAY RIVER - At pump station off Valley Rd & Lambert St.
2004002	ELIZABETHTOWN WATER COMPANY	201-345-4444	BRIDGEWATER TWP	RARITAN & MILLSTONE RIVERS - At confluence
2108001	HACKETTSTOWN MUA	201-852-3622	DRAKESTOWN	MINE HILL RESERVOIR - Off Mine Hill Rd.
			DRAKESTOWN	BURD RESERVOIR - Off Reservoir Rd. Southeast of



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
NEW JERSEY DISTRICT
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, New Jersey 08628
FAX: 609-771-3915



DATE: March 26, 1997

TO: Swamy Ketha
OFFICE: Royal Western
FAX NUMBER: 8-908-225-7037

FROM THE DESK OF:
Robert D. Schopp
Phone: 609-771-3968

2 Pages, including cover page

Here are the estimated mean annual flows for the Delaware River and 5 tributaries that you requested.

Bob Schopp

ESTIMATED MEAN ANNUAL FLOWS OF SELECTED RIVERS

Site	Drainage Area	Estimated Mean Annual Discharge
Delaware River upstream of Cooper River	~8,000 sq mi	~13,000 cfs
Cooper River at mouth	40.4 sq mi	72 cfs
Newton Creek at Mouth	10.6 sq mi	10 cfs
Little Timber Creek at Mouth	4.31 sq mi	8 cfs
Big Timber Creek at mouth	64.4 sq mi	124 cfs
Delaware River upstream of Woodbury Creek and downstream of Schuylkill River	9,971 sq mi	17,000 cfs
Woodbury Creek at mouth	12.3 sq mi	21 cfs
Mantua Creek at mouth	50.2 sq mi	76 cfs

RD Schopp/GA Brown 03/26/97
USGS, West Trenton, NJ

Surface Water Quality Standards

 N.J.A.C. 7:9B



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

**Office of Land and Water Planning
April 1994**



- (f) A reclassification for more restrictive uses may be made when:
1. It is demonstrated to the satisfaction of the Department that the waters should be set aside to represent the natural aquatic environment and its associated biota; or
 2. It is demonstrated to the satisfaction of the Department that a more restrictive use is necessary to protect a unique ecological system or threatened/endangered species.
- (g) In those cases in which a thermal discharge is involved, the procedures for reclassifying segments for more restrictive uses shall be consistent with section 316 of the Federal Clean Water Act.

7:9B-1.12 Designated uses of FW1, PL, FW2, SE1, SE2, SE3, and SC waters

- (a) In all FW1 waters the designated uses are:
1. Set aside for posterity to represent the natural aquatic environment and its associated biota;
 2. Primary and secondary contact recreation;
 3. Maintenance, migration and propagation of the natural and established aquatic biota; and
 4. Any other reasonable uses.
- (b) In all PL waters the designated uses are:
1. Cranberry bog water supply and other agricultural uses;
 2. Maintenance, migration and propagation of the natural and established biota indigenous to this unique ecological system;
 3. Public potable water supply after such treatment as required by law or regulations;
 4. Primary and secondary contact recreation; and
 5. Any other reasonable uses.
- (c) In all FW2 waters the designated uses are:

1. Maintenance, migration and propagation of the natural and established biota;
2. Primary and secondary contact recreation;
3. Industrial and agricultural water supply;
4. Public potable water supply after such treatment as required by law or regulation; and
5. Any other reasonable uses.

(d) In all SE1 waters the designated uses are:

1. Shellfish harvesting in accordance with N.J.A.C. 7:12;
2. Maintenance, migration and propagation of the natural and established biota;
3. Primary and secondary contact recreation; and
4. Any other reasonable uses.

(e) In all SE2 waters the designated uses are:

1. Maintenance, migration and propagation of the natural and established biota;
2. Migration of diadromous fish;
3. Maintenance of wildlife;
4. Secondary contact recreation; and
5. Any other reasonable uses.

(f) In all SE3 waters the designated uses are:

1. Secondary contact recreation;
2. Maintenance and migration of fish populations;
3. Migration of diadromous fish;
4. Maintenance of wildlife; and

5. Any other reasonable uses.

(g) In all SC waters the designated uses are:

1. Shellfish harvesting in accordance with N.J.A.C. 7:12;
2. Primary and secondary contact recreation;
3. Maintenance, migration and propagation of the natural and established biota; and
4. Any other reasonable uses.

7:9B-1.13 Designated uses of mainstem Delaware River and Delaware Bay as set forth in the "Delaware River Basin Commission, Administrative Manual - Part III Water Quality Regulations," Article 3, dated May 22, 1991 including all amendments and future supplements thereto.

- (a) The designated uses for the mainstem Delaware River and Delaware Bay are those contained in "Delaware River Basin Commission, Water Quality Regulations, Administrative Manual - Part III," Article 3, dated May 22, 1991, including all amendments and future supplements thereto.
- (b) The designated uses for other waters under the jurisdiction of the DRBC are as set forth at N.J.A.C. 7:9B-1.15(d).

7:9B-1.14 Surface water quality criteria

- (a) Surface water quality criteria for FW1 waters shall be maintained as to quality in their natural state.
- (b) Surface water quality criteria for PL waters are as follows:
 1. These waters shall be maintained as to quality in their existing state or that quality necessary to attain or protect the designated uses, whichever is more stringent.
 - i. For Nitrate-Nitrogen a level of 2 mg/l shall be maintained in the surface waters unless it is shown that a lower level must be maintained to protect the existing surface water quality.
 - ii. A pH level between 3.5 and 5.5 shall be maintained unless it is demonstrated that a pH level outside of that range is necessary to protect the existing/ designated uses.

CRANBERRY LAKE (Byram)	FW2-TM(C1)
CRANBERRY LAKE OUTLET STREAM	
(Byram) - Entire length within Cranberry Lake State Park	FW2-NT(C1)
(Byram) - Stream outside of Cranberry Lake State Park	FW2-NT
CRISS BROOK (Stokes State Forest) - Entire length within	FW1(tp)
the boundaries of Stokes State Forest	
CROSSWICKS CREEK (Bordentown) - Entire length	FW2-NT
CROW CREEK (S. Dennis) - Entire length	FW2-NT/SE1(C1)
CULVER'S CREEK (Frankford) - Entire length	FW2-TM
CULVER'S LAKE (Frankford)	FW2-TM
DEER LAKE (Sandyston)	FW2-NT(C1)
DEER PARK BRANCH - See RANCOCAS CREEK	
DEER PARK POND	
(Allamuchy) - Pond and tributaries to the pond within	FW2-NT(C1)
Allamuchy State Park, except those tributaries	
classified as FW1, below	
(Allamuchy) - All tributaries to the Pond and to its outlet	FW1
stream that are located entirely with the	
boundaries of Allamuchy State Park	
(Allamuchy) - Deer Park Pond outlet stream downstream	FW2-TM(C1)
to Musconetcong River	
DELAWANNA CREEK (Delaware) - Entire length	FW2-TM
DELAWARE AND RARITAN CANAL (Lambertville) - Entire	FW2-NT
length	
DELAWARE RIVER	
MAIN STEM (Interstate Waters - Classifications from	
Delaware River Basin Commission (DRBC))	
(State Line) - That portion of DRBC's Zone 1C from the	Zone 1C
New York-New Jersey state line to the proposed	
axis of the Tocks Island Dam at River Mile 217.0	
(Tocks Island) - Proposed axis of Tocks Island Dam at	Zone 1D
River Mile 217.0 to the mouth of the Lehigh River	
at Easton, Pennsylvania, at River Mile 183.66	
(Easton, Pa.) - Mouth of the Lehigh River at River Mile	Zone 1E
183.66, to the head of tide at the Trenton-	
Morrisville Toll Bridge, Trenton at River Mile	
133.4	
(Trenton) - Head of tide at the Trenton-Morrisville Bridge,	Zone 2
Trenton, River Mile 133.4 to below the mouth of	
Pennypack Creek, Pennsylvania at River Mile	
108.4	
(Philadelphia) - River Mile 108.4 to below the mouth of	Zone 3
Big Timber Creek, New Jersey, at River Mile 95.0	
(Gloucester) - River Mile 95.0 to the Pennsylvania-	Zone 4
Delaware state line at River Mile 78.8	

tributary described below, to confluence with Big Flat Brook	
(Flatbrook-Roy) - Tributary which originates north of Bevans-Layton Rd. downstream to the first pond adjacent to the Fish and Game headquarters building	FW1(tp)
LITTLE SHABACUNK CREEK (Lawrence) - Entire length	FW2-NT
LITTLE SWARTSWOOD LAKE (Swartswood)	FW2-NT(C1)
LITTLE YORK CREEK (Little York) - Entire length	FW2-TP(C1)
LOCKATONG CREEK	
(Kingwood) - Source to Idell Bridge	FW2-NT
(Raven Rock) - Idell Bridge to Delaware River	FW2-TM
LOGAN POND (Repaupo)	FW2-NT(C1)
LOMISONS GLEN BROOK (Lomisons Glen) - Entire length	FW2-TP(C1)
LONG POND (Mad Horse Creek)	SE1(C1)
LONE TREE CREEK (Egg Island) - Entire length	SE1(C1)
LOPATCONG CREEK	
(Allens Mills) - Source to Decker Rd. bridge	FW2-TP(C1)
(Herkers Hollow) - Decker Rd. bridge to Rt. 22 bridge	FW2-TM
(Phillipsburg) - Rt. 22 bridge to Delaware River	FW2-NT
TRIBUTARY	
(Uniontown) - Entire length	FW2-TP(C1)
LOWER BROTHERS CREEK (Egg Island) - Entire length	SE1(C1)
LOWER DEEP CREEK (Mad Horse Creek) - Entire length	SE1(C1)
LUBBERS RUN (Byram) - Entire length	FW2-TM
MAD HORSE CREEK	
(Canton) - Source to the boundary of Mad Horse Creek Wildlife Management Area and all tributaries outside the boundaries of the Wildlife Management Area	FW2-NT/SE1
(Mad Horse Creek) - Creek and all waters within the Mad Horse Creek Wildlife Management Area	FW2-NT/SE1(C1)
MALAPATIS CREEK	
(Mad Horse Creek) - Entire length, except segment described below	SE1(C1)
(Mad Horse Creek) - Portions of the Creek beyond the boundaries of the Mad Horse Creek Wildlife Management Area	SE1
MANANTICO CREEK	
(Millville) - Entire length, except segment described below	FW2-NT
(Manantico) - Segment within the boundaries of the Manantico Ponds Wildlife Management Area	FW2-NT(C1)
MANTUA CREEK (Woodbury) - Entire length	FW2-NT/SE2
MARCIA LAKE	
(High Point State Park) - Entire Lake	FW2-TM(C1)

5. To find unnamed waterways or waterbodies or named waterways or waterbodies which do not appear in the listing, use the following instructions:
- i. Unnamed or unlisted freshwater streams that flow into streams classified as FW2-TP, FW2-TM, or FW2-NT take the classification of the classified stream they enter, unless the unlisted stream is a PL water which is covered in (b)5vii below. If the stream could be a C1 water, see (b)5vi below.
 - ii. All freshwater lakes, ponds and reservoirs that are five or more acres in surface area, that are not located entirely within the Pinelands Area boundaries (see (b)5vii below) and that are not specifically listed as FW2-TP or FW2-TM are classified as FW2-NT. This includes lakes, ponds and reservoirs on segments of streams which are classified as FW2-TM or FW2-TP such as Saxton Lake on the Musconetcong River. If the waterbody could be a C1 water, also check (b)5vi below.
 - iii. All freshwater lakes, ponds and reservoirs, that are less than five acres in surface area, upstream of and contiguous with FW2-TP or FW2-TM streams, and which are not located entirely within the Pinelands Area boundaries (see (b)5vii below) are classified as FW2-TM. All other freshwater lakes, ponds and reservoirs that are not otherwise classified in this subsection or the following Tables are classified as FW2-NT. If the waterbody could be a C1 water, also check (b)5vi below.
 - iv. Unnamed or unlisted streams that enter FW2 lakes, ponds and reservoirs take the classification of either the listed tributary stream flowing into the lake with the highest classification or the listed tributary stream leaving the lake with the highest classification, whichever has the highest classification, or, if there are no listed tributary or outlet streams to the lake, the first listed stream downstream of the lake. If the stream is located within the boundaries of the Pinelands Area, see (b)5.vii. below; if it could be a C1 water, also see (b)5vi below.
 - v. Unnamed or unlisted saline waterways and waterbodies are classified as SE1 in the Atlantic Coastal Basin. Unnamed or unlisted saline waterways which enter SE2 or SE3 waters in the Passaic, Hackensack and New York Harbor Complex basin are classified as SE2 unless otherwise classified within Table 3 in (e) below. Freshwater portions of unnamed or unlisted streams entering SE1, SE2, or SE3 waters are classified as FW2-NT. This only applies to waters that are not PL waters (see (b)5vii below). If the waterbody or waterway could be a C1 water, also see (b)5vi below.
 - vi. If the waterway or waterbody of interest flows through or is entirely located within State parks, forests or fish and game lands, Federal wildlife refuges, other special holdings, or is a State shellfish water as defined in this subchapter, the Department's maps should be checked to determine if the waterbody of interest is mapped as a C1 water. If the waterway or waterbody does not appear on the United States Geological Survey quadrangle that the Department used as a base map in its designation of the

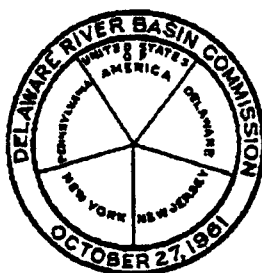
DELAWARE RIVER BASIN COMMISSION

Gerald M. Hansler
Executive Director

DELAWARE RIVER BASIN

WATER CODE

DECEMBER 1996



(Incorporates pertinent resolutions
adopted through October 23, 1996)

DELAWARE RIVER BASIN COMMISSION
P.O. BOX 7360
WEST TRENTON, NEW JERSEY 08628

(609) 883-9500

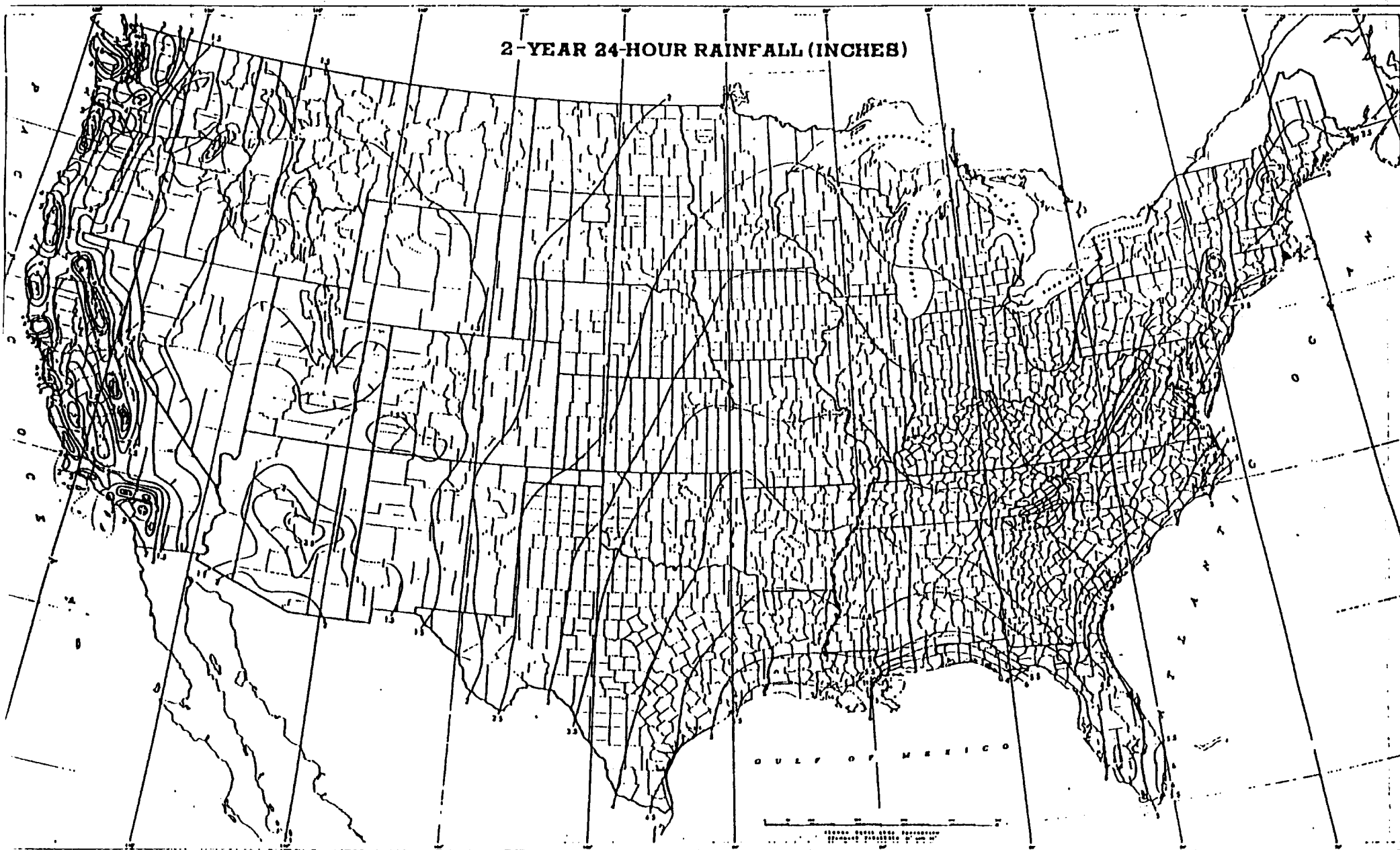
3.30.4 Zone 4

- A. **Description** (*Resolution No. 67-2*). Zone 4 is that part of the Delaware River extending from R.M. 95.0 to R.M. 78.8, the Pennsylvania-Delaware boundary line, including the tidal portions of the tributaries thereof.
- B. **Water Uses to be Protected** (*Resolution No. 67-2*). The quality of Zone 4 waters shall be maintained in a safe and satisfactory condition for the following uses:
1. a. industrial water supplies after reasonable treatment;
 2. a. maintenance of resident fish and other aquatic life,
b. passage of anadromous fish,
c. wildlife;
 3. (*Resolution Nos. 74-1 and 91-6*)
a. recreation - secondary contact above R.M. 81.8,
b. recreation below R.M. 81.8;
 4. a. navigation.
- C. **Stream Quality Objectives.**
1. **Dissolved Oxygen** (*Resolution Nos. 67-2 and 74-1*).
a. 24-hour average concentration shall not be less than 3.5 mg/l.
b. During the periods from April 1 to June 15, and September 16 to December 31, the dissolved oxygen shall not have a seasonal average less than 6.5 mg/l.
 2. **Temperature** (*Resolution Nos. 67-2 and 74-1*). Shall not exceed
a. 5°F (2.8°C) above the average 24-hour temperature gradient displayed during the 1961-66 period, or
b. a maximum of 86°F (30.0°C), whichever is less.
 3. **pH** (*Resolution No. 67-2*). Between 6.5 and 8.5.
 4. **Phenols** (*Resolution Nos. 67-2 and 74-1*). Maximum 0.02 mg/l, unless exceeded due to natural conditions.
 5. **Threshold Odor Number** (*Resolution No. 67-2*). Not to exceed 24 at 60°C.
 6. **Synthetic Detergents (M.B.A.S.)** (*Resolution Nos. 67-2 and 74-1*). Maximum 30-day average 1.0 mg/l.
 7. **Radioactivity** (*Resolution No. 67-2*).
a. alpha emitters - maximum 3 pc/l (picocuries per liter);
b. beta emitters - maximum 1,000 pc/l.
 8. **Bacteria** (*Resolution No. 91-6*).
a. **Fecal Coliform** (*Resolution Nos. 70-3 and 74-1*).
1) Above R.M. 81.8 maximum geometric average 770 per 100 milliliters.
2) Below R.M. 81.8 maximum geometric average 200 per 100 milliliters.

REFERENCE NO. 12

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM		PROJECT NOTE
TO:	Yurgin Motors File	
DATE:	1/10/97	
FROM:	Dennis Foerter	
SUBJECT:	Two-Year, 24-Hour Rainfall/Drainage Area - Yurgin Motors Site	
<p style="text-align: center;"><u>Two-Year 24-hour Rainfall</u></p> <ul style="list-style-type: none">An evaluation of the attached Two-Year 24-Hour Rainfall Map (U.S. Department of Commerce, Technical Paper No. 40; 1961) indicates that the Two-Year 24-Hour Rainfall in the area of the Yurgin Motors site is between 3 and 3.5 inches. <p style="text-align: center;"><u>Drainage Area</u></p> <ul style="list-style-type: none">For Hazard Ranking System (HRS) purposes, an estimated drainage area for the Yurgin Motors site was calculated utilizing U.S.G.S. topographic map for the site (see Ref. No. 5 of this report). The drainage area includes the waste source areas and areas upgradient of these sources. Waste sources were located primarily in the western portion (2-3 acres) of the site. The site is bordered by a wooded area to the north and Route 45 to the west. These were evaluated as barriers in the drainage area calculation. Based on this evaluation, the estimated drainage area for the site is less than 5 acres. <p style="text-align: right;">Signature/Date <u>Dennis Foerter 1/10/97</u></p>		

2-YEAR 24-HOUR RAINFALL (INCHES)



GULF OF MEXICO

0 10 20 30 40 50 60 70 80 90 100

Scale: 1 inch = 100 miles
1:500,000

REFERENCE NO. 13

USEPA TAT-2

Series 1959, No. 8

Issued June 1962

SOIL SURVEY

Gloucester County New Jersey



UNITED STATES DEPARTMENT OF AGRICULTURE

Soil Conservation Service

In cooperation with

NEW JERSEY AGRICULTURAL EXPERIMENT STATION

a little more slowly in spring. Suitable crops are listed under the series description. Capability unit IIIw-1.

Fallsington sandy loam (Fd).—This soil has the profile described as representative of the Fallsington series. In some small areas, the surface layer is loamy sand. In general, this soil is suited to the crops mentioned in the series description. Capability unit IIIw-1.

Freehold Series

Freehold soils have a grayish-brown surface layer over a yellowish-brown sandy loam to sandy clay loam subsoil. The subsoil is underlain by a loose, yellowish-brown sandy substratum.

The soils have formed from sandy marine deposits containing small amounts of glauconite. They are mostly gently sloping, but small areas along streams are steeply sloping. The soils are well drained.

The native woodland consists of mixed oaks and yellow-poplar.

Freehold soils occur in association with Collington, Colts Neck, Marlton, Westphalia, Woodstown, and Dragston soils. They are not mottled like the Woodstown and Dragston soils. They are not so red as the Colts Neck soils. Freehold soils contain less glauconite than the Collington soils and are, therefore, less olive brown. They are much sandier and much less glauconitic than the Marlton soils and are not composed of uniformly fine sand, as are the Westphalia soils.

Representative profile (Freehold loamy sand, 0 to 5 percent slopes, in woodland 1 mile west of Clements Bridge):

- A₀ 1½ inches to 0 inch, matted, fibrous, very dark brown mor; contains needles of Virginia pine and leaves of white, chestnut, and black oaks.
- A₁ 0 to 4 inches, brown to yellowish-brown (10YR 5/3) medium or coarse sand; single grained; loose.
- A₂ 4 to 14 inches, yellowish-brown (10YR 5/4) loamy sand or sand; single grained; 5 percent of mass is rounded quartzose pebbles, 1 to 2 inches in diameter, that occur about 2 inches above the B horizon; boundary abrupt.
- B₂ 14 to 40 inches, yellowish-red (5YR 4/6) sandy clay or sandy clay loam; massive or very weak, subangular blocky structure; friable when moist, slightly sticky or somewhat plastic when wet, firm to very firm when dry; coarse fragments are more abundant and make up 15 to 20 percent of soil mass, but pebbles do not touch each other; only a few weak vertical cracks; no apparent clay flows; boundary gradual.
- BC 40 to 96 inches, yellowish-red (5YR 4/6) sandy loam in discontinuous bands, ½ to 1 inch thick, alternating with bands of strong-brown (7.5YR 5/8) medium to coarse sand, 3 to 4 inches thick; the bands continue to a depth of 8 feet; single grained.

The combined thickness of the A₁ and A₂ horizons in the profile described is less than normal for Freehold loamy sand. The A₂ horizon varies greatly in thickness within short distances.

Normally, there is enough glauconite in the subsoil to be recognized in the field by an experienced observer. In places glauconite is apparent only in the substratum. In some places the older glauconitic deposits have been covered by more recent materials containing much gravel, slabs of ironstone, and little or no glauconite. In some small areas, the soils contain enough glauconite to be similar to the Collington soils; in other areas the soils con-

tain little or no glauconite. Small amounts of mica occur in the soils in places. In many areas the substratum contains material high in iron, either in the form of concretions or as thin, wavy bands that range from loose to firmly cemented.

The color of the subsoil ranges from yellowish brown to yellowish red. The thickness of the subsoil ranges from 12 to 30 inches but averages approximately 20 inches.

Freehold soils are well drained and are easily worked. They are mainly low to moderate in natural fertility. Their subsoil is moderately permeable.

Freehold loamy sand, 0 to 5 percent slopes (FnB).—A profile of this soil is described as representative of the series. The thickness of the surface layer ranges from 10 to 30 inches but averages about 20 inches. In some areas the surface layer consists of sand. In places the subsoil contains little clay or only thin bands of clay. In some low-lying positions, ground water rises into the subsoil late in winter. As a result, the lower part of the subsoil is mottled.

This soil is suited to asparagus, sweetpotatoes, fruit, and early vegetables. Because of droughtiness, the soil is not suited to peppers, tomatoes, or eggplants unless it is irrigated. It is too droughty for corn, hay, and soybeans. Because it is sandy, the soil is susceptible to severe wind erosion and fertilizer leaches out readily. Capability unit IIs-1.

Freehold loamy sand, 5 to 10 percent slopes (FnC).—Except for stronger slopes, this soil is similar to Freehold loamy sand, 0 to 5 percent slopes. As a result, it is more susceptible to water erosion and requires more careful management.

This soil is suited to the same crops as Freehold loamy sand, 0 to 5 percent slopes. Capability unit IIIe-2.

Freehold sand, thick surface variant, 0 to 10 percent slopes (FnB).—This soil has a thicker surface layer than the other Freehold soils. The thickness of the surface layer of sand is normally 30 inches, but it ranges from 10 to 40 inches. Beneath the sand is a sandy loam subsoil similar to that in the other Freehold soils.

This soil is very droughty, is very low in natural fertility, and is subject to severe wind erosion. Fertilizer leaches readily through the soil. This soil is best suited to woodland or to wildlife habitats. Capability unit IVs-1.

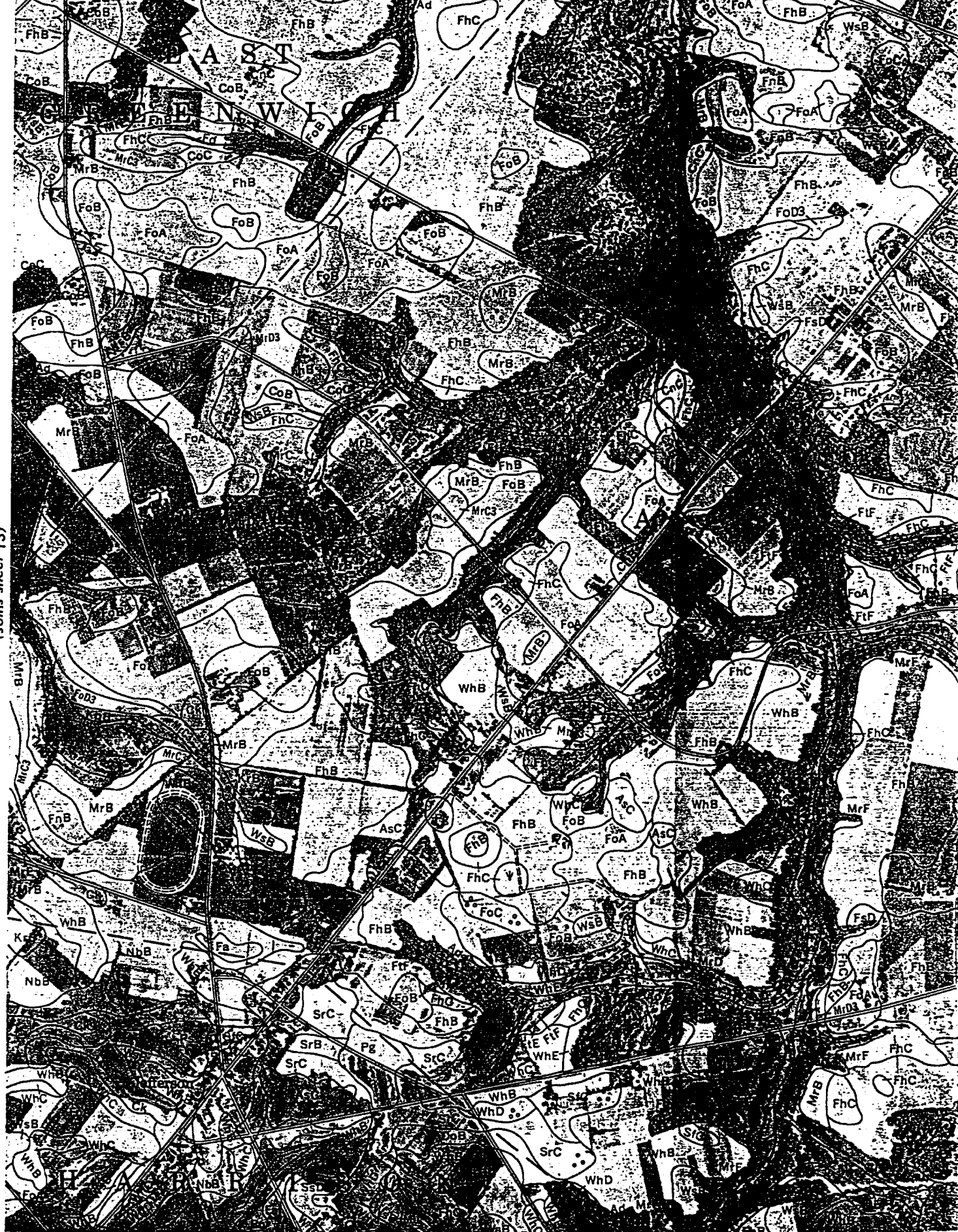
Freehold sandy loam, 0 to 2 percent slopes (FoA).—This soil has a profile similar to the one described for the series. The surface layer, however, contains enough silt and clay to be of sandy loam texture. It averages 14 inches in thickness. In small areas the surface layer is fine sandy loam. In some low-lying positions, especially where the soil is underlain by layers of clay, ground water rises into the subsoil. In these places the soil is likely to be wet for short periods during each year and the subsoil may be mottled. Drainage improvement may be needed if fruit or high-value vegetables are grown.

The soil is easily worked and responds well to fertilization. It retains moisture moderately well.

This soil, on the whole, is suited to many kinds of crops. Most areas, however, do not warm soon enough for early vegetables. This soil is not sandy enough for sweetpotatoes. Capability unit I-1.

N

(Joins sheet 13)



(Joins sheet 18)

FoB
Wsb

0

1/2

REFERENCE NO. 14

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

**TOWNSHIP OF
MANTUA,
NEW JERSEY
GLOUCESTER COUNTY**

PANEL 15 OF 15
(SEE MAP INDEX FOR PANELS NOT PRINTED)


COMMUNITY-PANEL NUMBER
340207 0015 B

EFFECTIVE DATE:
NOVEMBER 3, 1982



Federal Emergency Management Agency

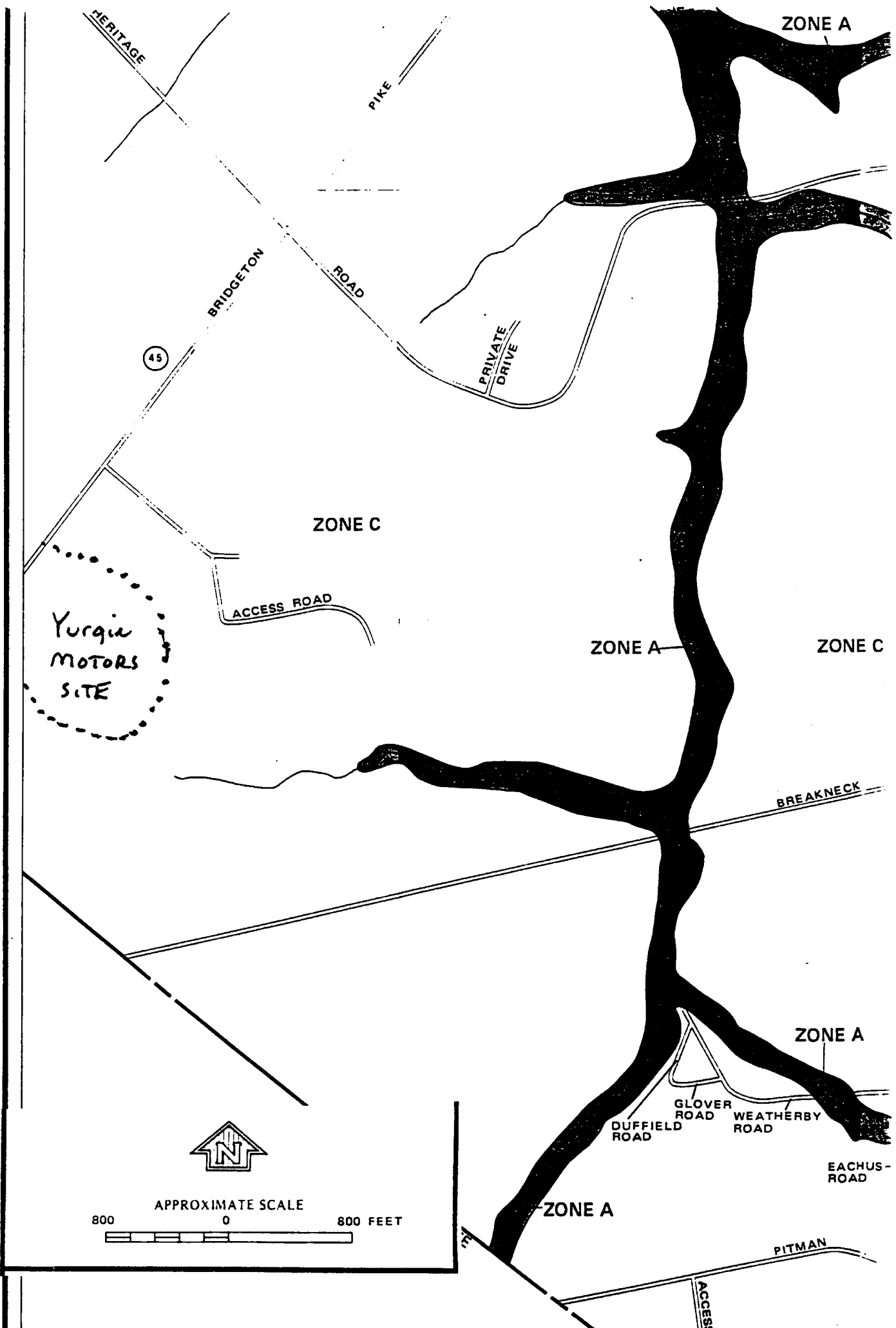
KEY TO MAP

500-Year Flood Boundary	—————	ZONE B
100-Year Flood Boundary	—————	ZONE A1
Zone Designations*		
100-Year Flood Boundary	—————	ZONE B
500-Year Flood Boundary	—————	
Base Flood Elevation Line With Elevation In Feet**	~~~~~513~~~~~	
Base Flood Elevation in Feet Where Uniform Within Zone**		(EL 987)
Elevation Reference Mark		RM7X
Zone D Boundary	—————	
River Mile		•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.



ZONE A

PIKE

HERITAGE

BRIDGETON

ROAD

45

PRIVATE
DRIVE

ZONE C

ACCESS ROAD

Yurgin
MOTORS
SITE

ZONE A

ZONE C

BREAKNECK

ZONE A

GLOVER
ROAD
DUFFIELD
ROAD

WEATHERBY
ROAD

EACHUS-
ROAD

ZONE A

PITMAN

ACCESS



APPROXIMATE SCALE

800 0 800 FEET



REFERENCE NO. 15

START - 02-065

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Item No. 56-522	"		Journal



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FIELD SCREENING 9/5/46	4-5

August 14, 1946 - OFF-SITE RECONNAISSANCE

1250 START Dennis Fowler arrives at Yukon Motor site for off-site Recon. Neil Norrell of VICTA also at site. Site is located on Rt. 45 on the north bound side. Site is bordered to the west by Rt. 45 to the south by a wooded area, to east by vacant land and to the north by a vacant lot.

1300 The site consists of the building located on an asphalt pad, which extends in front of the BDA. The front of the site (along Rt 45) is fenced with locked gates; however, the site is accessible, as an access road extends into the western border of the site. North of the main Bldg. are 3 semi trailers which are closed.

1310 From the western border fence line, many drums can be observed to the north and east of the main Bldg. In addition, a truck is observed in this area. This truck and several drums loaded on the back. The eastern portion of the property appears to dip to the east, while the surface runs in the area of the western portion of the site appear to flow toward Rt. 45. Storm drains were observed along Rt. 45. Runoff from the site appears to go to the north.

1315 Along the southwest portion of the site, there is a collapsed Bldg. There are some drums stacked in this area. There is also a yellow trailer in this area.

Soils in the area of the site appear to be light brown, fine sands. The site is located in a rural, residential/light commercial area.

1320 Acc.

is

This

No

The

fee

1345 Len

No

1 P

1 P

1 P

1 P

1 P

1 P

1 P

1 P

(DT)

UNAVAILABLE

at Yukon Motor
 i. Norrell of VISTA
 on Rt. 45 on
 road to the west
 wooded Area, to
 north by a vacant

located on and
 at the BDA.
 (it 45) is fenced
 the site is acreville,
 the western
 the main bldg, ARE

line, many
 th and east of
 truck is observed
 wheel down loaded
 on the 10/10/74
 the surface runs
 of the site allow
 drawn well
 from the
 th

site, there is
 down started in
 trailer in the

to be light
 located in a
 area

1320 Across the street and slightly south of the site
 is one residence with a farm. (GARDNER'S FARM)
 This residence is within 200 feet of the site's border.
 No other residences are within 200 feet. In addition
 there are no schools or Daycare Centers within 200
 feet of the site.

1345 Leave site for Day

Photographs - 8-14-76 - Taken by D. Foster

No.	Time	Description
1P-1	1300	SE view of Yukon Motor bldg
1P-2	1302	Exit view of Yukon bldg
1P-3	1305	View of Semi Trailer on west border of site
1P-4	1315	SE View of trailer in south portion of site
1P-5	1320	Nearest residence across (Rt. 45) from site
1P-6	1325	Access road to site is north portion of site
1P-7	1330	Exit view of drums (abandoned) on site
1P-8	1335	" " " " " " " "

D. Foster
 8/14/76

(D)

(D)

September 5, 1996 FIELD SCREENING

1015 Arrive on site

Weather - ~87°F Humid, partly cloudy

Personnel on site - D. Foote (DF)

J. Levisky (JL)

T. Folsom (TF)

C. Strickland (CS)

N. Marshall - EPA OIC

1030 START crew Calibrating Instruments (see below)

OVA (898150) — Buckland - 0 ppm

Victorcen (898134)

" - 0.01 mL/H

HNU (898117)

" - 0% LEL / O₂ - 20.8%

CGI (898142)

" - 0 ppm

1045 DF give Health and Safety Tailgate meeting

1135 DF, JF, & TF monitor air in area of drums,

as well as get an idea of what drums we

will sample. No readings above background in

Ambient air on all instruments, CGI is at

0% LEL and 20.8% oxygen.

1140 OVA readings are slightly above background. However

there is a strong odor of decaying hay (farm) and

manure from the area ^{near} the farm. The HNU

doesn't read above background. Readings above

background on the OVA and HNU are obtained

when JF & JF inserted probe into the

drums. Readings range from 0 to 40 units above

background

NOTE: Sampling will be completed in here

by respiratory protection.

1150 Technician Neil Marshall (NM) of types of drums

we saw. Mostly oil and some drums with

solvents. Drums are in poor condition, some

have leaked the staining is there. Manure is not

chased, (no time to real).

1155

1200

and

sit

with

Jan

1205 JF

De

1210 JF

is

ChL

SL

1215 JF

is

1220 JF

vol

of

1230 JF

Perk

There

The

read

1245 JF

Trin

Prim

min

NOTE

1300 JF

CS

1310

in

back

1315

the

1155
1200 (C) Stamer & Co. Inc. HazCat Station near
building on east portion of site. Rest of crew
sitting up for drum samples. I and JF
collecting samples from drum labeled 29. See DRUM
Inventory Log for more details. HNU - 20 ppm

1200 JF and IL collecting sample from Drum - Sample YN-2.
Drum 1/2 full no labels - steel HNU - 15 ppm

1200 JF/IL collecting sample from Drum (sample YN-3) drum
is ~ 1/2 full - labeled vapor degreaser (DOW)
Chloroethane V6 - Dow Chromated Vapor Degreaser
solvent. HNU - 40 ppm

1205 IL collecting sample from YN-4 from Drum. Drum
is 1/2 full Drum says "Perthane Product" HNU - 10 ppm

1220 JF collecting sample YN-7 from Drum with solid
yellowish sludge emanating from top - HNU readings
of 0 ppm. - Drum is full.

1230 Bruce samples back to CS for HazCatting. CS has
performed field screening on 4 samples (Y100 - Y104)

These samples were collected for small containers within
the building on a work bench. No Hs. monitoring
readings were obtained

1245 Trailer - S-60 5 gallon pails with Labels saying
"Primer Coating - "Fire Hazard" - Contains thinner
minimum Flash Point 100°F."

NOTE: All drum samples collected in level B.

1300 STAFF crew cleaning up and packing equipment while
CS finishes HazCatting of remaining samples

1330: Although readings above background were obtained
in some. Ambient air conditions were not above
background. It is estimated that there are
(10) drums in the area of the truck in
the NE portion of the site

(6)

SAMPLING TRIP REPORT

SITE NAME: Yurgin Motors
DCN #: START-02-F-00544
TDD #: 02-96-08-0002

EPA I.D. NO.: HM

SAMPLING DATE: September 5, 1996

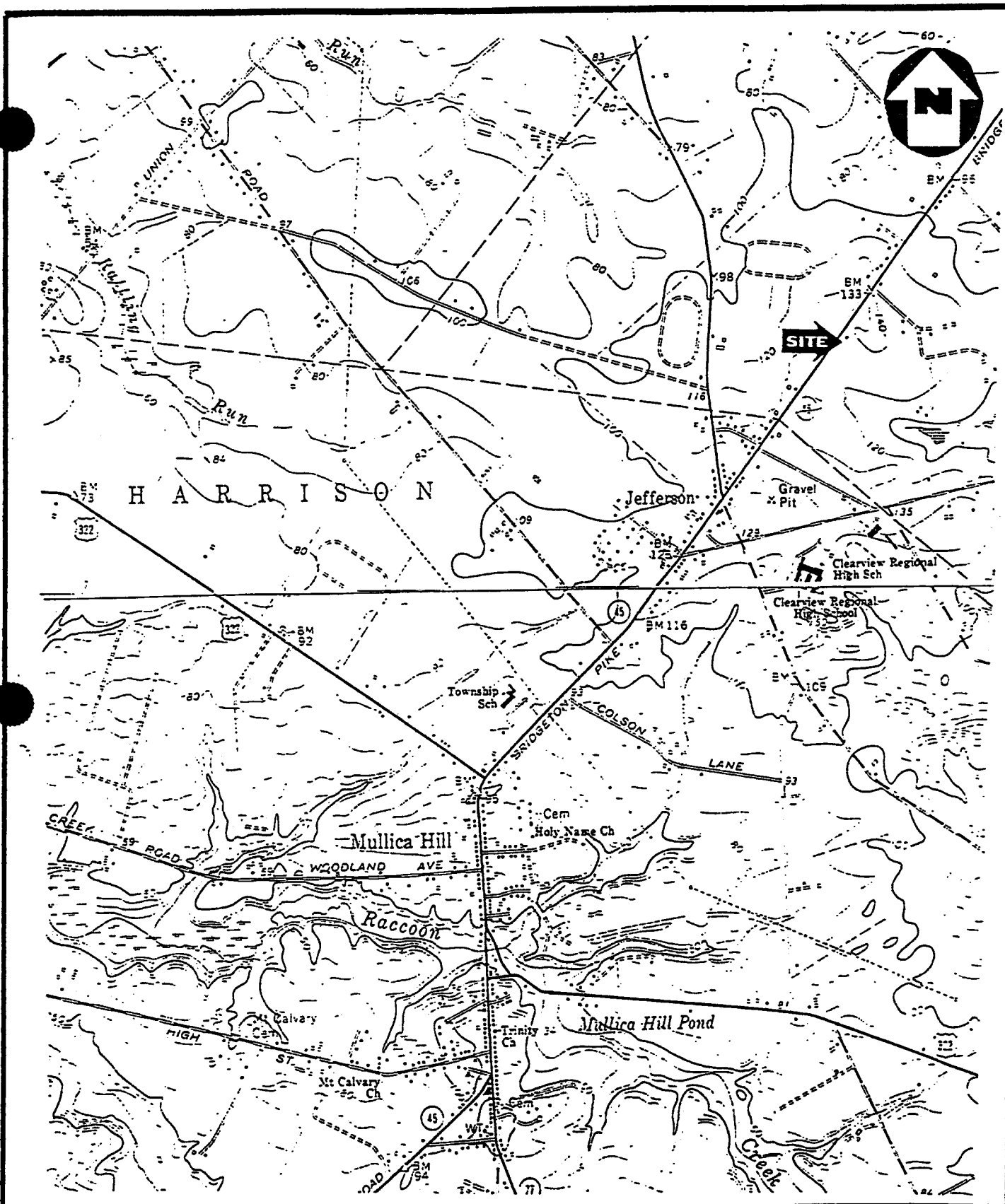
1. **Site Location:** Mantua Township, New Jersey (Figure 1)
2. **Sample Descriptions:** Refer to Table 1
3. **Personnel :**

<u>Name</u>	<u>Company</u>	<u>Duties on Site</u>
Dennis Foerter	Region II START	Acting Project Manager, QA/Safety Coordinator
Christoph Stannik	Region II START	HazCat Technician
Joseph Filosa	Region II START	Sampler
Ilene Presworsky	Region II START	Sampler
Neil Norrell	U.S. EPA	On-Scene Coordinator

4. **Additional Comments:**

On September 5, 1996, the Region II Superfund Technical Assessment and Response Team (START) conducted field screening activities at the the Yurgin Motors site. During this investigation, samples from drums and other containers were collected and field screened utilizing the Hazard Categorization (HazCat) Chemical Identification System. Field Testing results are presented in Table 1.

5. **Report Prepared by:** Dennis J. Foerter **Date:** 9/13/96
Dennis J. Foerter, CHMM
6. **Report Approved by:** W. Scott Butterfield **Date:** 9/16/96
W. Scott Butterfield, CHMM



Roy F. Weston, Inc.
FEDERAL PROGRAMS DIVISION

IN ASSOCIATION WITH RESOURCE APPLICATION, Inc.
C.C. JOHNSON & MALHOTRA, P.C., R.E. SARRIERA ASSOCIATES,
PRC ENVIRONMENTAL MANAGEMENT, AND GRB ENVIRONMENTAL SERVICES, INC.

EPA PM

Norrell

START PM

O'Neill

Figure 1
Site Location
Map

Yurgin Motors

TABLE 1
FIELD TESTING RESULTS
YURGIN MOTORS
MANTUA, GLOUCESTER COUNTY, NEW JERSEY

Sample #	Solubility		Reaction		pH	Flammable	Chlorine hot wire	Oxidizer	Description	Comments/Designation
	H ₂ O	Hexane	Air	H ₂ O						
YM-002	N	Y	N	N	NA*	Y	Y		black oily liquid, 55-gal. drum, 50% full	Hnu: 15 units; in water solubility test, part sinks (indicates chlorinated solvent), part floats (organic); <i>flammable, chlorinated liquid</i>
YM-003 Top Bottom	N Y	Y N	N N	N N	NA* 6	N N	N		black oily liquid over watery liquid, 55-gal. drum, 25% full	Hnu: 40 units; Chlor-N-Oil test on top portion negative; <i>non-flammable, non-corrosive liquid</i>
YM-004	N	Y	N	N	NA*	Y	N		black oily liquid, 55-gal. drum, 50% full	Hnu: 10 units; <i>flammable liquid</i>
YM-005 Top Bottom	Y N	N Y	N N	N N	6-7 NA*	N Y	N N	N N	clear watery liquid over brown sludge, 55-gal. drum, full	Hnu: 0 units; char test for bottom: vapors ignitable, non-oxidizing, pH 6; <i>top: aqueous, non-corrosive, non-flammable</i> <i>bottom: flammable solid/sludge</i>
YM-029	N	Y	N	N	NA*	Y	Y		black oily liquid, 55-gal. drum, 25% full	Hnu: 20 units; <i>flammable, chlorinated liquid</i>
YM-100	N	Y	N	N	5-6	Y		N	clear watery liquid, 250ml container, 50% full	'contains butyl acetate, flamm. liquid, vapors harmful' <i>flammable liquid</i>
YM-101	Y	N	N	N	1	N		N	1-qt. container, 25% full	'iron etch steel cleaner, vapor harmful, contains phosphoric acid and alcohols', foams <i>corrosive liquid</i>
YM-102	N	Y	N	N	6	Y			liquid, 1-gal. container, 10% full, clear watery liquid	'wax and grease remover, contains aromatic petroleum hydrocarbons, 2-butoxy ethyl acetate, VM&P naphtha <i>flammable liquid</i>
YM-103	Y	N	N	N	1	N		N	green watery liquid, 1-gal. container, 25% full	'metal conditioner, acidic concentrate, containsmetals andchromium', test for Cr ⁶⁺ inconclusive <i>corrosive liquid</i>

NA*: pH not applicable to oily liquids

REFERENCE NO. 16

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

PROJECT NOTES

TO: Yurgen Motors File

DATE: 1/10/97

FROM: Dennis Foerster

COPIES: TDD File 02-96-08-1002

SUBJECT: SENSITIVE Environments - Yurgen Motors

REFERENCE: NWI maps / Natural Heritage Program Data

↳ Reference to

- An evaluation of NWI maps for the 4-mile radius of the Yurgen Motors site indicates the following:

Distance (mi)

Approximate Wetland Acreage

0 - 1/4

1

1/4 - 1/2

16

1/2 - 1

78

1 - 2

330

2 - 3

518

3 - 4

772

TOTAL: 1,715 Acres

- wetland Frontage within 15-mile surface water pathway: 16.3 miles
- Edwards River (8.3 miles), Mount Creek (6 miles), Dolomite River (2 miles)

- One Federally-listed threatened species (bald eagle) was identified on water associated with the 15 mile surface water pathway to the Yurgen site
 - In addition, 13 state listed endangered species and 1 federal-listed threatened species were identified within the site's 4-mile vicinity
- Information documenting the above is attached. No sensitive environments exist on the Yurgen Motors site.

D. Foerster
1/10/97



State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection
Division of Parks and Forestry
Office of Natural Lands Management
Natural Heritage Program
CN 404
Trenton, NJ 08625-0404
Tel. #609-984-1339
Fax. #609-984-1427

Robert C. Shinn, Jr.
Commissioner

December 9, 1996

Dennis Foerter
Roy F. Weston, Inc.
1090 King Georges Post Road, Suite 201
Edison, NJ 08837-3703

Re: Yurgin Motors (Site 1465) & Associated Waterways

Dear Mr. Foerter:

Thank you for your data request regarding rare species information for the above referenced project site in Gloucester County.

The Natural Heritage Data Base does not have any records for rare plants, animals, or natural communities on the Yurgin Motors site. However, there is a record for a bald eagle occurrence which may be on, or in the immediate vicinity of the waterways that you have associated with this site. The attached list provides additional information about these occurrences. Also attached is a list of rare species from records in the general vicinity of the project site (within approximately 4 miles).

Also attached are lists of rare species and natural communities which have been documented from Gloucester County. If suitable habitat is present at the project site, these species have potential to be present. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend you contact the Division of Fish, Game and Wildlife, Endangered and Nongame Species Program.

In order to red flag the general locations of documented occurrences of rare and endangered species and natural communities, we have prepared computer generated Natural Heritage Index Maps. Enclosed please find these maps for the Bridgeport and Woodbury USGS quadrangles.

PLEASE SEE THE ATTACHED 'CAUTIONS AND RESTRICTIONS ON NHP DATA'.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this

data request. Feel free to contact us again regarding any future data requests.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom F. Breden". The signature is fluid and cursive, with the first name "Tom" and last name "Breden" clearly distinguishable.

Thomas F. Breden
Supervisor

cc: Lawrence Niles
Thomas Hampton
NHP File No. 96-3907572

NATURAL LANDS MANAGEMENT

CAUTIONS AND RESTRICTIONS ON NATURAL HERITAGE DATA

The quantity and quality of data collected by the Natural Heritage Program is dependent on the research and observations of many individuals and organizations. Not all of this information is the result of comprehensive or site-specific field surveys. Some natural areas in New Jersey have never been thoroughly surveyed. As a result, new locations for plant and animal species are continuously added to the data base. Since data acquisition is a dynamic, ongoing process, the Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of New Jersey. Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. The attached data is provided as one source of information to assist others in the preservation of natural diversity.

This office cannot provide a letter of interpretation or a statement addressing the classification of wetlands as defined by the Freshwater Wetlands Act. Requests for such determination should be sent to the DEP Land Use Regulation Program, CN 401, Trenton, NJ 08625-0401.

This cautions and restrictions notice must be included whenever information provided by the Natural Heritage Database is published.

6 DEC 1996

ON OR IN THE IMMEDIATE VICINITY OF ASSOCIATED WATERWAYS
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK	DATE OBSERVED	IDENT.
** Vertebrates								
HALIAEETUS LEUCOCEPHALUS	BALD EAGLE	LTNL	E		G4	S1	1995-05-01	Y

Records Processed

9

6 DEC 1996

GENERAL VICINITY OF PROJECT SITE
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK	DATE OBSERVED	IDENT.
** Vertebrates								
AMBYSTOMA TIGRINUM TIGRINUM	EASTERN TIGER SALAMANDER		E		G5T5	S2	1949-10-07	Y
UTEO LINEATUS	RED-SHOULDERED HAWK		E/T		G5	S2	1984-SPRNG	Y
HELMYS MUHLENBERGII	BOG TURTLE	C	E		G3	S2	1977-05-??	Y
HELMYS MUHLENBERGII	BOG TURTLE	C	E		G3	S2	1987-SPRNG	Y
HELMYS MUHLENBERGII	BOG TURTLE	C	E		G3	S2	????-??-??	Y
** Vascular plants								
AGASTACHE NEPETOIDES	YELLOW GIANT HYSSOP				G5	S2	1985-07-??	Y
PLECTRUM HYEMALE	PUTTYROOT		E		G5	S1	1983-06-00	Y
CRISTIDA BASIRAMEA VAR	CURTIS' THREE-AWNE GRASS				G5T5	S2	1919-10-19	Y
CURTISSII								
ASCLEPIAS RUBRA	RED MILKWEED			LP	G4G5	S2	1892-09-15	Y
ASCLEPIAS VARIEGATA	WHITE MILKWEED				G5	S2	1917-06-24	Y
ASCLEPIAS VARIEGATA	WHITE MILKWEED				G5	S2	1918-06-13	Y
ASCLEPIAS VARIEGATA	WHITE MILKWEED				G5	S2	1923-06-16	Y
ASCLEPIAS VERTICILLATA	WHORLED MILKWEED				G5	S2	1919-11-15	Y
ASTER INFIRMUS	CORNEL-LEAVED ASTER				G5	S2	1896-08-09	Y
ASTER INFIRMUS	CORNEL-LEAVED ASTER				G5	S2	1914-11-14	Y
CACALIA ATRIPLICIFOLIA	PALE INDIAN PLANTAIN		E		G4G5	S1	1934-11-04	Y
CACALIA ATRIPLICIFOLIA	PALE INDIAN PLANTAIN		E		G4G5	S1	1923-06-16	Y
CAREX BARRATTII	BARRATT'S SEDGE			LP	G4	S4	1888-04-28	Y
CAREX BARRATTII	BARRATT'S SEDGE			LP	G4	S4	1927-??-??	Y
CASTANEA PUMILA	ALLEGHENY CHINQUAPIN		E		G5	S1	1989-08-01	Y
CYPERUS RETROFRACTUS	ROUGH FLATSEDGE		E		G5	SH	1932-10-16	Y
DESMODIUM LAEVIGATUM	SMOOTH TICK-TREFOIL				G5	S3	1988-08-12	Y
ELEOCHARIS TORTILIS	TWISTED SPIKERUSH		E		G5	S1	1897-09-26	Y
HELONIAS BULLATA	SWAMP-PINK	LT	E	LP	G3	S3	1910-05-16	Y
HELONIAS BULLATA	SWAMP-PINK	LT	E	LP	G3	S3	1892-06-02	Y
HELONIAS BULLATA	SWAMP-PINK	LT	E	LP	G3	S3	1990-06-06	Y

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6 DEC 1996

GENERAL VICINITY OF PROJECT SITE
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK	SRANK	DATE OBSERVED	IDENT.
UZULA ACUMINATA	HAIRY WOODRUSH		E		G5	S1	1985-04-19	Y
POLYGALA INCARNATA	PINK MILKWORT		E		G5	SH	1892-09-15	Y
QUERCUS IMBRICARIA	SHINGLE OAK		E		G5	S1.1	1989-09-18	Y
IPULARIA DISCOLOR	CRANEFLY ORCHID				G4G5	S3	1985-07-??	Y
VERNONIA GLAUCA	BROAD-LEAVED IRONWEED		E		G5	S1	1923-06-05	Y
VERNONIA GLAUCA	BROAD-LEAVED IRONWEED		E		G5	S1	1920-09-22	Y
VERNONIA GLAUCA	BROAD-LEAVED IRONWEED		E		G5	S1	1988-08-12	Y
PULPIA ELLIOTEA	SQUIRREL FESCUE		E		G5	SH	1933-05-07	Y

4 Records Processed

5

EXPLANATIONS OF CODES USED IN NATURAL HERITAGE REPORTS

FEDERAL STATUS CODES

The following U.S. Fish and Wildlife Service categories and their definitions of endangered and threatened plants and animals have been modified from the U.S. Fish and Wildlife Service (F.R. Vol. 50 No. 188; Vol. 61, No. 40; F.R. 50 CFR Part 17). Federal Status codes reported for species follow the most recent listing.

- LE Taxa formally listed as endangered.
- LT Taxa formally listed as threatened.
- PE Taxa already proposed to be formally listed as endangered.
- PT Taxa already proposed to be formally listed as threatened.
- C Taxa for which the Service currently has on file sufficient information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.
- S/A Similarity of appearance species.

STATE STATUS CODES

Two animal lists provide state status codes after the Endangered and Nongame Species Conservation Act of 1973 (NSSA 23:2A-13 et. seq.): the list of endangered species (N.J.A.C. 7:25-4.13) and the list defining status of indigenous, nongame wildlife species of New Jersey (N.J.A.C. 7:25-4.17(a)). The status of animal species is determined by the Nongame and Endangered Species Program (ENSP). The state status codes and definitions provided reflect the most recent lists that were revised in the New Jersey Register, Monday, June 3, 1991.

- D Declining species-a species which has exhibited a continued decline in population numbers over the years.
- E Endangered species-an endangered species is one whose prospects for survival within the state are in immediate danger due to one or many factors - a loss of habitat, over exploitation, predation, competition, disease. An endangered species requires immediate assistance or extinction will probably follow.
- EX Extirpated species-a species that formerly occurred in New Jersey, but is not now known to exist within the state.
- I Introduced species-a species not native to New Jersey that could not have established itself here without the assistance of man.
- INC Increasing species-a species whose population has exhibited a significant increase, beyond the normal range of its life cycle, over a long term period.
- T Threatened species-a species that may become endangered if conditions surrounding the species begin to or continue to deteriorate.
- P Peripheral species-a species whose occurrence in New Jersey is at the extreme edge of its present natural range.
- S Stable species-a species whose population is not undergoing any long-term increase/decrease within its natural cycle.
- U Undetermined species-a species about which there is not enough information available to determine the status.

status for animals separated by a slash(/) indicate a dual status. First status refers to the state breeding population, and the second status refers to the migratory or winter population.

Plant taxa listed as endangered are from New Jersey's official Endangered Plant Species List N.J.S.A. 131B-15.151 et seq.

E Native New Jersey plant species whose survival in the State or nation is in jeopardy.

REGIONAL STATUS CODES FOR PLANTS

LP Indicates taxa listed by the Pinelands Commission as endangered or threatened within their legal jurisdiction. Not all species currently tracked by the Pinelands Commission are tracked by the Natural Heritage Program. A complete list of endangered and threatened Pineland species is included in the New Jersey Pinelands Comprehensive Management Plan.

EXPLANATION OF GLOBAL AND STATE ELEMENT RANKS

The Nature Conservancy has developed a ranking system for use in identifying elements (rare species and natural communities) of natural diversity most endangered with extinction. Each element is ranked according to its global, national, and state (or subnational in other countries) rarity. These ranks are used to prioritize conservation work so that the most endangered elements receive attention first. Definitions for element ranks are after The Nature Conservancy (1982: Chapter 4, 4.1-1 through 4.4.1.3-3).

GLOBAL ELEMENT RANKS

- G1 Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.
- G2 Imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.
- G3 Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; with the number of occurrences in the range of 21 to 100.
- G4 Apparently secure globally; although it may be quite rare in parts of its range, especially at the periphery.
- G5 Demonstrably secure globally; although it may be quite rare in parts of its range, especially at the periphery.
- GH Of historical occurrence throughout its range i.e., formerly part of the established biota, with the expectation that it may be rediscovered.
- GU Possibly in peril range-wide but status uncertain; more information needed.
- GX Believed to be extinct throughout range (e.g., passenger pigeon) with virtually no likelihood that it will be rediscovered.
- G? Species has not yet been ranked.

STATE ELEMENT RANKS

- S1 Critically imperiled in New Jersey because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres). Elements so ranked are often restricted to very specialized conditions or habitats and/or restricted to an extremely small geographical area of the

state. Also included are elements which were formerly more abundant, but because of habitat destruction or some other critical factor of its biology, they have been demonstrably reduced in abundance. In essence, these are elements for which, even with intensive searching, sizable additional occurrences are unlikely to be discovered.

- S2 Imperiled in New Jersey because of rarity (6 to 20 occurrences). Historically many of these elements may have been more frequent but are now known from very few extant occurrences, primarily because of habitat destruction. Diligent searching may yield additional occurrences.
- S3 Rare in state with 21 to 100 occurrences (plant species in this category have only 21 to 50 occurrences). Includes elements which are widely distributed in the state but with small populations/acreage or elements with restricted distribution, but locally abundant. Not yet imperiled in state but may soon be if current trends continue. Searching often yields additional occurrences.
- S4 Apparently secure in state, with many occurrences.
- S5 Demonstrably secure in state and essentially ineradicable under present conditions.
- SA Accidental in state, including species (usually birds or butterflies) recorded once or twice or only at very great intervals, hundreds or even thousands of miles outside their usual range; a few of these species may even have bred on the one or two occasions they were recorded; examples include european strays or western birds on the East Coast and visa-versa.
- SE Elements that are clearly exotic in New Jersey including those taxa not native to North America (introduced taxa) or taxa deliberately or accidentally introduced into the State from other parts of North America (adventive taxa). Taxa ranked SE are not a conservation priority (viable introduced occurrences of G1 or G2 elements may be exceptions).
- SH Elements of historical occurrence in New Jersey. Despite some searching of historical occurrences and/or potential habitat, no extant occurrences are known. Since not all of the historical occurrences have been field surveyed, and unsearched potential habitat remains, historically ranked taxa are considered possibly extant, and remain a conservation priority for continued field work.
- SN Regularly occurring, usually migratory and typically nonbreeding species for which no significant or effective habitat conservation measures can be taken in the state; this category includes migratory birds, bats, sea turtles, and cetaceans which do not breed in the state but pass through twice a year or may remain in the winter (or, in a few cases, the summer); included also are certain lepidoptera which regularly migrate to a state where they reproduce, but then completely die out every year with no return migration. Species in this category are so widely and unreliably distributed during migration or in winter that no small set of sites could be set aside with the hope of significantly furthering their conservation. Other nonbreeding, high globally-ranked species (such as the bald eagle, whooping crane or some seal species) which regularly spend some portion of the year at definite localities (and therefore have a valid conservation need in the state) are not ranked SN but rather S1, S2, etc.
- SR Elements reported from New Jersey, but without persuasive documentation which would provide a basis for either accepting or rejecting the report. In some instances documentation may exist, but as of yet, its source or location has not been determined.
- SRF Elements erroneously reported from New Jersey, but this error persists in the literature.
- SU Elements believed to be in peril but the degree of rarity uncertain. Also included are rare taxa of uncertain taxonomical standing. More information is needed to resolve rank.
- SX Elements that have been determined or are presumed to be extirpated from New Jersey. All historical occurrences have been searched and a reasonable search of potential habitat has been completed. Extirpated taxa are not a current conservation priority.

110

- SXC** Elements presumed extirpated from New Jersey, but native populations collected from the wild exist in cultivation.
- T** Element ranks containing a "T" indicate that the infraspecific taxon is being ranked differently than the full species. For example *Stachys palustris* var. *homotricha* is ranked "G5T? SH" meaning the full species is globally secure but the global rarity of the var. *homotricha* has not been determined; in New Jersey the variety is ranked historic.
- Q** Elements containing a "Q" in the global portion of its rank indicates that the taxon is of questionable, or uncertain taxonomical standing, e.g., some authors regard it as a full species, while others treat it at the subspecific level.
- .1** Elements documented from a single location.

Note: To express uncertainty, the most likely rank is assigned and a question mark added (e.g., G2?). A range is indicated by combining two ranks (e.g., G1G2, S1S3).

IDENTIFICATION CODES

These codes refer to whether the identification of the species or community has been checked by a reliable individual and is indicative of significant habitat.

- Y** Identification has been verified and is indicative of significant habitat.
- BLANK** Identification has not been verified but there is no reason to believe it is not indicative of significant habitat.
- ?** Either it has not been determined if the record is indicative of significant habitat or the identification of the species or community may be confusing or disputed.

Revised December 1996

(11)

REFERENCE NO. 17

FROST ASSOCIATES

P.O.Box 495, Essex, Connecticut 06426
(860) 767-7644 FAX (860) 767-1971

October 4, 1996

To: Roy F. Weston Inc
1090 King Georges Post Road, Suite 201
Edison, NJ 08837-3703

Attn: Dennis Foerter

Fr: Bob Frost
Frost Associates
P.O. Box 495
Essex, Conn 06426

Tel: (203) 767-1254
Fax: (203) 767-1971

Sub: Mantua Twp
Gloucester, NJ

CERCLIS:

1465

Site Longitude: 75-12-18 75.205002
Site Latitude : 39-45-35 39.759720

The CENTRACTS report below identifies the population, households, and private water wells of each Block Group that lies within, or partially within, the 4, 3, 2, 1, .5, and .25, mile "rings" of the latitude and longitude coordinates above. CENTRACTS may have up to ten radii of any length. 1000 block groups, and 15000 block group sides.

CENTRACTS uses the 1990 Block Group population and Block Group house count data found in the Census Bureau's 1990 STF-1A files. The sources of water supply data are from the Bureau's 1990 STF-3A files. The boundary line coordinates of the Block Groups were extracted from the Census Bureau's 1990 TIGER/Line Files.

CENTRACTS reports are created with programs written by Frost Associates, P.O. Box 495, Essex, Conn. The code was written using Microsoft's Quick-Basic Ver. 4.5.

Latitude and Longitude coordinates identifying a site are entered in degrees and decimal degrees. One or more county files holding Block Group boundary lines are selected for use by CENTRACTS by determining whether the site coordinates fall within the minimum and maximum Lat\Lon coordinates of each county in the state.

Each Block Group line segment has Lat\Lon coordinates representing the "From" and "To" ends of that line. All coordinates from the selected county files are read and converted from degrees, decimal degrees to X\Y miles from the site location. Each line segment is then examined whether it lies within or partially within the maximum ring from the site.

The unique Block Group ID numbers of each line segment that lie within the maximum ring are retained. All Block Group boundary lines matching the Block Group numbers are then extracted from the respective county files to obtain all sides of the included Block Groups. Boundary records are then sorted in adjacent side order to determine the shape and area of each Block Group polygon.

A method to solve for the area of a polygon is to take one-half the sum of the products obtained by multiplying each X-coordinate by the difference between the adjacent Y-coordinates. For a polygon with coordinates at adjacent angles A, B, C, D, and E. The formula can be expressed:

$$\text{Area} = 1/2\{X_a(Y_e - Y_b) + X_b(Y_a - Y_c) + X_c(Y_b - Y_d) + X_d(Y_c - Y_e) + X_e(Y_d - Y_a)\}$$

For each ring, the selected Block Groups will be inside, outside, or intersected by the ring. When a polygon is intersected, the partial Block Group area within that ring is calculated using the method described below.

When a ring intersects a Block Group, the intersect points are solved and plotted at the points where the ring enters and exits the shape. The chord line, a line within the circle connecting the intersect points is determined. This chord line is used to calculate the segment area, the half moon shape between the chord line and the ring, and the sub-polygon created by the chord line and the Block Group boundaries that lie outside the ring.

The segment area is subtracted from the sub-polygon area to determine the area of the sub-polygon outside the ring. The area outside the ring is then subtracted from the area of the entire polygon to arrive at the inside area. This inside area is then divided by the tract's total area to determine the percentage of area within the ring. This process is repeated for each block group that is intersected by one of the rings. The total area, partial area, and percentage of partial area of those block groups within, or partially within a ring, are held in memory for the report.

On occasion, the algorithm described above is unable to determine the area of the partial area. Within the report program is a "Paint" routine which allows an enclosed shape to be highlighted. Another routine calculates the percentage of highlighted screen pixels to the pixels within the polygon. A manual entry is allowed. Both the "paint" method and manual entry method override the calculated method.

CENTRACTS lists, starting on page 4, all Block Groups in State, County, Census Tract, and Block Group ID order that lie within, or partially within, the maximum ring. Each Block Group is identified by a City or Town name and by the Block Group's State, County, Tract and Block Group ID number. Following is the Block Group's 1990 population and house count extracted from the Census Bureau's 1990 STF-1A files.

The next four columns display water source data from the 1990 STF-3A files. The first column is "Units with Public system or private company source of water", followed by "Units with individual well, Drilled, source of water"; "Units with individual well, Dug, source of water" and "Units with Other source of water".

For each ring, CENTRACTS then shows the Block Groups that are within that ring, the Block Group's total area in square miles, the partial area of the Block Group within that ring, and the partial percentage within the ring. The areas of the included Block Group and the partial areas are then totaled.

The last section tallies the demographic data within each ring. The percentage of area for each Block Group is multiplied times the census data for that Block Group and totaled for all Block Group's within the ring. Ring totals are then determined by subtracting the three mile data from the four mile, the two mile from the three mile, one from the two, etc... Population on private wells is calculated using the formula: $((\text{Drilled} + \text{Dug Wells}) / \text{Households}) * \text{Population}$

Mantua Twp
Gloucester, NJ

No.	City	Block Group ID	Blk Grp People	House Holds	Public Water	Drilled Wells	Dug Wells	Other
1	East Greenwich	34015 5006	1 750	279	285	0	0	0
2	East Greenwich	34015 5006	2 1110	385	387	0	4	0
3	East Greenwich	34015 5006	3 194	67	65	0	0	0
4	East Greenwich	34015 5006	9 3204	1019	684	244	63	6
5	Wenonah	34015 5008	1 887	326	329	4	0	0
6	Wenonah	34015 5008	2 749	267	266	6	0	0
7	Wenonah	34015 5008	3 695	244	232	0	0	0
8	Elk	34015 5019	9 2517	920	107	784	54	0
9	Harrison	34015 5020	1 217	68	20	40	0	0
10	Harrison	34015 5020	2 1117	527	525	10	8	0
11	Harrison	34015 5020	9 3381	1131	257	791	75	0
12	South Harrison	34015 5021	9 1919	644	20	562	57	5
13	Woolwich	34015 5022	1 471	158	4	113	41	0
14	Woolwich	34015 5022	9 988	340	21	276	51	0
15	West Deptford	34015 5002031	1491	518	497	7	0	0
16	West Deptford	34015 5002032	752	224	203	0	0	0
17	West Deptford	34015 5002033	2409	1119	1146	8	0	0
18	West Deptford	34015 5002042	2782	1416	1421	16	1	0
19	West Deptford	34015 5002043	146	69	34	39	0	0
20	Mantua	34015 5007011	820	321	256	68	0	0
21	Mantua	34015 5007012	1074	480	409	60	0	0
22	Mantua	34015 5007013	1705	563	514	59	6	0
23	Mantua	34015 5007014	748	310	255	47	0	0
24	Mantua	34015 5007021	807	299	299	0	0	0
25	Mantua	34015 5007022	1267	432	398	34	0	0
26	Mantua	34015 5007023	1263	420	383	57	8	0
27	Mantua	34015 5007024	1007	322	203	89	0	0
28	Mantua	34015 5007031	528	186	9	165	14	0
29	Mantua	34015 5007032	855	286	13	249	24	0
30	Deptford	34015 5011062	1516	453	366	91	18	0
31	Deptford	34015 5011063	1106	384	344	26	0	0
32	Deptford	34015 5011071	2381	730	751	0	0	0
33	Deptford	34015 5011072	1151	389	374	0	0	0
34	Deptford	34015 5011073	1674	564	543	0	0	0
35	Pitman	34015 5013014	1151	386	378	0	0	0
36	Pitman	34015 5013022	1599	595	568	0	0	0
37	Pitman	34015 5013031	351	138	134	0	0	0
38	Pitman	34015 5013032	1149	310	325	0	0	0
39	Pitman	34015 5013033	1072	417	406	0	0	0
Totals:			49003	17706	13431	3845	424	11

Mantua Twp
Gloucester, NJ

City	Census Tract ID	Tract People	House Count	Public Water	Drilled Wells	Dug Wells	Other Sources
Deptford	34015 5011072	1151	389	374	0	0	0
Deptford	34015 5011062	1516	453	366	91	18	0
Deptford	34015 5011063	1106	384	344	26	0	0
Deptford	34015 5011071	2381	730	751	0	0	0
Deptford	34015 5011073	1674	564	543	0	0	0
Sub Totals:		7828	2520	2378	117	18	0
East Greenwich	34015 5006 1	750	279	285	0	0	0
East Greenwich	34015 5006 2	1110	385	387	0	4	0
East Greenwich	34015 5006 3	194	67	65	0	0	0
East Greenwich	34015 5006 9	3204	1019	684	244	63	6
Sub Totals:		5258	1750	1421	244	67	6
Elk	34015 5019 9	2517	920	107	784	54	0
Sub Totals:		2517	920	107	784	54	0
Harrison	34015 5020 1	217	68	20	40	0	0
Harrison	34015 5020 2	1117	527	525	10	8	0
Harrison	34015 5020 9	3381	1131	257	791	75	0
Sub Totals:		4715	1726	802	841	83	0
Mantua	34015 5007021	807	299	299	0	0	0
Mantua	34015 5007023	1263	420	383	57	8	0
Mantua	34015 5007011	820	321	256	68	0	0
Mantua	34015 5007022	1267	432	398	34	0	0
Mantua	34015 5007024	1007	322	203	89	0	0
Mantua	34015 5007031	528	186	9	165	14	0
Mantua	34015 5007013	1705	563	514	59	6	0
Mantua	34015 5007032	855	286	13	249	24	0
Mantua	34015 5007012	1074	480	409	60	0	0
Mantua	34015 5007014	748	310	255	47	0	0
Sub Totals:		10074	3619	2739	828	52	0
Pitman	34015 5013014	1151	386	378	0	0	0
Pitman	34015 5013022	1599	595	568	0	0	0
Pitman	34015 5013032	1149	310	325	0	0	0
Pitman	34015 5013031	351	138	134	0	0	0
Pitman	34015 5013033	1072	417	406	0	0	0
Sub Totals:		5322	1846	1811	0	0	0
South Harrison	34015 5021 9	1919	644	20	562	57	5
Sub Totals:		1919	644	20	562	57	5
Penonah	34015 5008 1	887	326	329	4	0	0

Mantua Twp
Gloucester, NJ

Penonah	34015 5008	3	695	244	232	0	0	0
Penonah	34015 5008	2	749	267	266	6	0	0
	Sub Totals:		2331	837	827	10	0	0
West Deptford	34015 5002033		2409	1119	1146	8	0	0
West Deptford	34015 5002031		1491	518	497	7	0	0
West Deptford	34015 5002042		2782	1416	1421	16	1	0
West Deptford	34015 5002043		146	69	34	39	0	0
West Deptford	34015 5002032		752	224	203	0	0	0
	Sub Totals:		7580	3346	3301	70	1	0
Woolwich	34015 5022	1	471	158	4	113	41	0
Woolwich	34015 5022	9	988	340	21	276	51	0
	Sub Totals:		1459	498	25	389	92	0

Mantua Twp
Gloucester, NJ

For Radius of 4 Mi., Circle Area = 50.265482

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
1	East Greenwich	34015 50061	0.311577	0.311577	100.00
2	East Greenwich	34015 50062	1.488587	1.488587	100.00
3	East Greenwich	34015 50063	0.268136	0.268136	100.00
4	East Greenwich	34015 50069	12.482418	9.755577	78.15
5	Wenonah	34015 50081	0.277028	0.190670	68.83
6	Wenonah	34015 50082	0.375792	0.375792	100.00
7	Wenonah	34015 50083	0.301799	0.301799	100.00
8	Elk	34015 50199	15.236646	0.261188	1.71
9	Harrison	34015 50201	0.352455	0.352455	100.00
10	Harrison	34015 50202	1.035830	1.035830	100.00
11	Harrison	34015 50209	17.289337	14.124001	81.69
12	South Harrison	34015 50219	15.406794	1.740802	11.30
13	Woolwich	34015 50221	4.999897	1.123754	22.48
14	Woolwich	34015 50229	17.264313	0.367281	2.13
15	West Deptford	34015 5002031	0.593904	0.158619	26.71
16	West Deptford	34015 5002032	0.247546	0.205338	82.95
17	West Deptford	34015 5002033	1.313945	1.313945	100.00
18	West Deptford	34015 5002042	1.109201	0.049330	4.45
19	West Deptford	34015 5002043	2.236286	0.562608	25.16
20	Mantua	34015 5007011	0.355368	0.355368	100.00
21	Mantua	34015 5007012	0.891017	0.891017	100.00
22	Mantua	34015 5007013	0.995591	0.995591	100.00
23	Mantua	34015 5007014	1.314555	1.314555	100.00
24	Mantua	34015 5007021	0.310986	0.310986	100.00
25	Mantua	34015 5007022	1.062883	1.062883	100.00
26	Mantua	34015 5007023	1.880424	1.088701	57.90
27	Mantua	34015 5007024	1.203674	1.203674	100.00
28	Mantua	34015 5007031	2.805382	2.613098	93.15
29	Pitman	34015 5013033	0.458764	0.175021	38.15
30	Deptford	34015 5011062	3.070221	0.525898	17.13
31	Deptford	34015 5011063	0.673676	0.001948	0.29
32	Deptford	34015 5011071	0.389934	0.158310	40.60
33	Deptford	34015 5011072	0.357849	0.357849	100.00
34	Deptford	34015 5011073	0.305395	0.275580	90.24
35	Pitman	34015 5013014	0.375919	0.011422	3.04
36	Pitman	34015 5013022	0.244985	0.011746	4.79
37	Pitman	34015 5013031	0.169395	0.108119	63.83
38	Pitman	34015 5013032	0.257547	0.242216	94.05
39	Mantua	34015 5007032	4.646743	4.646743	100.00
Totals:			114.361794	50.338017	

Radius of 3 Mi., Circle Area = 28.274334

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
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Mantua Twp
Gloucester, NJ

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
1	East Greenwich	34015 50061	0.311577	0.125320	40.22
2	East Greenwich	34015 50062	1.488587	0.974471	65.46
3	East Greenwich	34015 50063	0.268136	0.268136	100.00
4	East Greenwich	34015 50069	12.482418	7.766009	62.22
9	Harrison	34015 50201	0.352455	0.352455	100.00
10	Harrison	34015 50202	1.035830	1.035830	100.00
11	Harrison	34015 50209	17.289337	8.666527	50.13
17	West Deptford	34015 5002033	1.313945	0.209872	15.97
20	Mantua	34015 5007011	0.355368	0.355368	100.00
21	Mantua	34015 5007012	0.891017	0.891017	100.00
22	Mantua	34015 5007013	0.995591	0.995591	100.00
23	Mantua	34015 5007014	1.314555	1.314555	100.00
24	Mantua	34015 5007021	0.310986	0.236593	76.08
25	Mantua	34015 5007022	1.062883	0.333598	31.39
26	Mantua	34015 5007023	1.880424	0.006187	0.33
27	Mantua	34015 5007024	1.203674	1.198150	99.54
28	Mantua	34015 5007031	2.805382	1.116478	39.80
33	Deptford	34015 5011072	0.357849	0.001320	0.37
39	Mantua	34015 5007032	4.646743	4.646743	100.00
Totals:			50.366760	30.494221	

Radius of 2 Mi., Circle Area = 12.566371

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
2	East Greenwich	34015 50062	1.488587	0.017936	1.20
3	East Greenwich	34015 50063	0.268136	0.268136	100.00
4	East Greenwich	34015 50069	12.482418	2.111555	16.92
9	Harrison	34015 50201	0.352455	0.352455	100.00
10	Harrison	34015 50202	1.035830	0.492134	47.51
11	Harrison	34015 50209	17.289337	3.256792	18.84
21	Mantua	34015 5007012	0.891017	0.127622	14.32
22	Mantua	34015 5007013	0.995591	0.966560	97.08
23	Mantua	34015 5007014	1.314555	1.237987	94.18
39	Mantua	34015 5007032	4.646743	3.735194	80.38
Totals:			40.764671	12.566371	

For Radius of 1 Mi., Circle Area = 3.141593

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
3	East Greenwich	34015 50063	0.268136	0.004234	1.58
4	East Greenwich	34015 50069	12.482418	0.014691	0.12
9	Harrison	34015 50201	0.352455	0.222401	63.10
11	Harrison	34015 50209	17.289337	0.535199	3.10
22	Mantua	34015 5007013	0.995591	0.138327	13.89
23	Mantua	34015 5007014	1.314555	0.265319	20.18

Mantua Twp
Gloucester, NJ

39 Mantua	34015 5007032	4.646743	1.961422	42.21
Totals:		37.349236	3.141593	

For Radius of .5 Mi., Circle Area = 0.785398

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
9	Harrison	34015 50201	0.352455	0.068649	19.48
11	Harrison	34015 50209	17.289337	0.005971	0.03
22	Mantua	34015 5007013	0.995591	0.000433	0.04
23	Mantua	34015 5007014	1.314555	0.001252	0.10
39	Mantua	34015 5007032	4.646743	0.709093	15.26
Totals:			24.598682	0.785398	

For Radius of .25 Mi., Circle Area = 0.196350

City	Block Group ID	Total Area	Partial Area	% Within Radius
39 Mantua	34015 5007032	4.646743	0.196350	4.23
Totals:		4.646743	0.196350	

Mantua Twp
Gloucester, NJ

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Site Data
=====

Population: 29909.27
Households: 10717.88
Drilled Wells: 1832.59
Dug Wells: 190.97
Other Water Sources: 5.25

=====
Partial (RING) data
=====

---- Within Ring: 4 Mile(s) and 3 Mile(s) ----

Population: 15845.51
Households: 5591.56
Drilled Wells: 584.89
Dug Wells: 67.97
Other Water Sources: 1.52

** Population On Private Wells: 1850.07

---- Within Ring: 3 Mile(s) and 2 Mile(s) ----

Population: 8729.00
Households: 3213.70
Drilled Wells: 702.38
Dug Wells: 69.26
Other Water Sources: 2.72

** Population On Private Wells: 2095.92

---- Within Ring: 2 Mile(s) and 1 Mile(s) ----

Population: 4337.58
Households: 1570.93
Drilled Wells: 372.52
Dug Wells: 40.39
Other Water Sources: 1.01

** Population On Private Wells: 1140.10

---- Within Ring: 1 Mile(s) and .5 Mile(s) ----

Population: 821.82
Households: 283.87
Drilled Wells: 126.67
Dug Wells: 9.67
Other Water Sources: 0.01

Population On Private Wells: 394.71

Mantua Twp
Gloucester, NJ

----- Within Ring: .5 Mile(s) and .25 Mile(s) -----

Population:	139.23
Households:	45.73
Drilled Wells:	35.61
Dug Wells:	2.68
Other Water Sources:	0.00

** Population On Private Wells: 116.56

----- Within Ring: .25 Mile(s) and 0 Mile(s) -----

Population:	36.13
Households:	12.09
Drilled Wells:	10.52
Dug Wells:	1.01
Other Water Sources:	0.00

** Population On Private Wells: 34.49

** Total Population On Private Wells: 5631.85

REFERENCE NO. 18

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM**PROJECT NOTE**

TO:

Yurgin Motors File

DATE:

6/1/97

FROM:

Dennis Foerter

SUBJECT:

U.S. EPA Removal Action Summary - Yurgin Motors Site

The following provides a general summary of removal activities conducted during the U.S. EPA Removal Action conducted from September 1996 to February 1997:

On 30 September 1996, EPA, Region II START, and the Emergency Response Cleanup Services (ERCS) contractor (OHM Remediation Services Corporation) mobilized to the Yurgin Motors site to initiate removal action activities. During a conversation between the Federal On-Scene Coordinator (OSC) and Region II START on 1 November 1996, the following was identified during the Removal Action: 166 drums, 2,520 small containers (1 gallon or less), 205 five-gallon buckets, and 19 gas cylinders were identified on site. In addition, visibly contaminated soil (approximately 5,000 square feet) was observed in the area of the drums.

During the EPA Removal Action, the small containers, 5-gallon buckets, gas cylinders and drums were removed from the site to permitted facilities. Also, 210 empty drums were removed from the site. In addition, the contents of two 1,000-gallon gasoline USTs were pumped and removed from the site. These tanks still remain in place. Contaminated soil was excavated from the former drum storage area until post-excavation samples indicated PCB levels below 10 parts per million (ppm). Excavation activities in this area were conducted to depths ranging from 1 to 3 feet, resulting in the removal of approximately 345 cubic yards of PCB-contaminated soil from the site to permitted facilities. Residual contaminated soil (PCBs less than 10 ppm) may still exist in this area. EPA and removal contractor personnel demobilized from the site on 7 February 1997.

Attached are Pollution Reports (POLREPS) 1 through 12, which document activities conducted during the EPA Removal Action at the Yurgin Motors site.

Signature/Date

D. Foerter 6/1/97

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: October 15, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: R. Caspe, 2ERRD
B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-20IG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)

POLREP No: One (1)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other
Abandoned Automotive Repair Facility

B. Site Description

1. Site Location

Yurgin Motors is located at 945 Bridgeton Pike (Route 45), Mantua Township, Gloucester County, New Jersey (block 273, lot 24). The Site consists of one office/shop building, one collapsed storage building, several office trailers, and eight box trailers. The buildings are of wood frame construction and are in extremely poor condition (one has collapsed). The property is approximately 24 acres in size and overgrown with low vegetation. There are wooded areas located along the northern and southern borders and in the center of the property.

The Site is situated in a rural area that is a mix of small farms, private residences and light commercial properties. The Site is bordered by Route 45 on the west, wooded lots on the north and south and an open lot on the east. The nearest residence is located approximately 150 feet to the west. A small farm and 6 residences are located approximately 250 feet to the north. A small strip mall is located less than 1/4 mile to the south.

The Site originally operated as a farm. The property was sold sometime in the mid-sixties and the western portion of the property converted for use as an automotive repair facility. In addition, several acres are reported to have been used as an auto recycling yard.

2. Description of Threat

On May 20, 1996, the Environmental Protection Agency (EPA) received a written request from the New Jersey Department of Environmental Protection (NJDEP) to perform a removal action at Yurgin Motors.

Approximately 150 drums, 12-15 compressed gas cylinders and 500 small containers are located at the Site. Many materials are flammable and/or corrosive and present a risk

of direct human contact. Incompatible materials, if mixed, present the threat of a release and/or fire from chemical reaction.

Hazardous materials are stored without regard for chemical compatibility. The structures in which they are stored are in extremely poor condition or have collapsed, increasing the chance of a reaction or release. Contact with the materials could present an immediate threat to the individuals involved.

Due to the presence of flammable liquids the threat of fire does exist. Should a fire occur it could spread across the facility and involve most of the material at the Site. The toxic fumes created by the uncontrolled combustion of these materials could impact the surrounding residents.

C. Preliminary Assessment Results

Preliminary assessments of the Site, performed by EPA, determined that approximately 150 drums, 12-15 compressed gas cylinders and approximately 500 small containers are abandoned at the Site. Hazcatting performed during the preliminary assessment revealed the presence of materials that meet the criteria of hazardous waste for the characteristics of ignitability and corrosivity. In addition, some of these materials were determined to be chlorinated organic compounds. All materials located at the Site are in poor condition and evidence of leakage is visible in several locations.

The buildings and property are not secured, and there is evidence of vandalism and public entry. Several areas of the Site show evidence of fires and a small above ground storage tank located near the office/shop building appears to have been used as a stove. The Gloucester County Sheriffs Department reports that persons using the Site as a temporary residence have been removed on several occasions.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

EPA, START and ERCS have mobilized to the Site and Removal activities have been initiated. Vegetation has been cleared as necessary and staging areas set up for all materials located at the Site. Command post, decon and lab trailers have been positioned and are operational. Telephone service has been initiated and line power will be in service shortly.

2. Removal Action to Date

On September 26, 1996 the OSC and ERCS-RM met on-site to discuss pending removal activities and personnel and equipment requirements for the Site.

On September 30, 1996, the OSC and ERCS mobilized to the Site. Clearing of heavy overgrowth began and site security was initiated.

On October 1, 1996, clearing and grading of material staging areas and trailer pads was completed.

On October 2, 1996, equipment and supplies necessary for operations were mobilized. All compressed gas cylinders were staged and secured.

On October 3-4, 1996, command post, decon and lab trailers were mobilized and blocked in place. Coordination of telephone and power services was initiated.

On October 7, 1996, set up of the trailers was completed. All trailers were tied in to a generator until line power could be initiated. Staging of drums was initiated.

On October 8, 1996, heavy rains hampered daily site operations. Drum staging operations continued.

On October 9, 1996, phone service was initiated. Drum staging continued. Overpack and empty drums were received for future use. Several local electrical contractors were on-site to bid on the installation of line power service.

On October 10, 1996, the ground water well was located and made operational. Sample tech arrives on-site and begins drum logging and inventory. Drum staging operations continued.

On October 11, 1996, drum staging, logging and inventory continues. Electricians install temporary power service. Inventory and staging of the 5 gallon containers is initiated.

3. Enforcement

No enforcement activities are currently taking place at the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Staging, inventory and logging of all materials located at the Site will be completed.

Sampling and field analysis of materials will be initiated.

Waste categorization will be completed and materials segregated into proper waste streams.

Transportation and disposal will be coordinated and implemented.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of October 11, 1996.

	Cost to Date
ERCS	\$ 30,770.00
START	\$ 3,500.00
EPA	\$ 8,000.00
Total	\$ 42,270.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: October 23, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: R. Caspe, 2ERRD
B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-20IG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)
~~START~~

POLREP No: Two (2)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxydizers and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

EPA, START and ERCS have mobilized to the Site and Removal activities have been initiated. Staging of drums has been completed and staging of the smaller containers has begun. Drum sampling and hazcatting was initiated.

2. Removal Action to Date

On October 15, 1996, drum numbering and logging was completed. Staging areas for the 5 gallon cans and small containers were completed and restaging and logging of the 5 gallon cans began.

On October 16, 1996, drum sampling continued. Staging and numbering of the 5 gallon cans continued. Hazcatting of drum samples continued.

On October 17, 1996, drum sampling continued. Staging and numbering of the 5 gallon cans was completed. Staging of the smaller containers began. Hazcatting of samples continued.

On October 18, 1996, drum sampling continued. Staging of the small containers continued. Hazcatting continued. ERCS T&D coordinator on-site for familiarization with materials to be disposed of.

3. Enforcement

No enforcement activities are currently taking place at the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Staging, inventory and logging of all materials located at the Site will be completed.

Sampling and field analysis of materials will be initiated.

Waste categorization will be completed and materials segregated into proper waste streams.

Transportation and disposal will be coordinated and implemented.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of October 18, 1996.

	Cost to Date
ERCS	\$ 44,960.00
START	\$ 5,000.00
EPA	\$ 9,000.00
Total	\$ 58,960.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

9609-17

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: November 1, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region III
Response and Prevention Branch

TO: R. Caspe, 2ERRD
B. Sprague, 2ERRD-RPB
J. Dalloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-2OIG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)

~~START~~

POLREP No: Three (3)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxydizers and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

EPA, START and ERCS have mobilized to the Site and Removal activities have been initiated. Sampling and hazcatting have been completed and waste categories assigned. The five gallon cans and smaller containers have been packed and are staged for disposal.

2. Removal Action to Date

On October 21, 1996, sampling and hazcatting continued.

On October 22, 1996, sampling and hazcatting continued. Ten percent of the 5 gallon cans were randomly chosen and pulled from the staging area for sampling to confirm the contents.

On October 23, 1996, sampling and hazcatting continued. Atlantic Electric completed the hookup to line power. Jerome Mercury Vapor Analyzer was used to determine possible mercury content of street-lamp bulbs located at the site. Results were negative.

On October 24, 1996, drum sampling was completed. Samples were taken from the 5 gallon cans. Hazcatting continued. Two underground storage tanks and one aboveground storage tank were sampled. Electrical contractors completed the tie in to line power. Cubic yard boxes for packing of the 5 gallon and smaller containers arrived.

On October 25, 1996, hazcatting continued. Packing of the small containers cans was initiated.

On October 28, 1996, hazcatting continued. Packing of the small containers continued.

On October 29, 1996, hazcatting continued. Packing of the small containers was completed. Packing of the 5 gallon cans was initiated.

On October 30, 1996, hazcatting was completed and assignment of bulk groups began. Packing of the 5 gallon cans continued.

On October 31, 1996, assignment of bulk groups and waste categories was completed. Packing of the 5 gallon cans was completed. OSC, ERCS-RM, ERCS chemist, ERCS T&D coordinator, and START met and discussed possible disposal options. Six additional 55-gallon drums were located, staged and sampled.

3. Enforcement

No enforcement activities are currently taking place at the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Bulk group composite samples will be sent for laboratory analysis.

Materials will be segregated into proper waste streams.

Materials will be transferred into shippable containers as necessary.

Transportation and disposal will be coordinated and implemented.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of November 1, 1996.

	Cost to Date
ERCS	\$ 76,100.00
START	\$ 7,000.00
EPA	\$ 10,000.00
Total	\$ 93,000.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: November 8, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: R. Caspe, 2ERRD
B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-2OIG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)
START {

POLREP No: Four (4)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Removal activities continue. Sampling and hazcatting have been completed and waste categories assigned. The five gallon cans and smaller containers have been packed and are staged for disposal. The above ground and underground storage tanks have been pumped. Overpacking operations have begun.

2. Removal Action to Date

On November 1, 1996, transfer of liquid from the above ground storage tank to shippable containers began. Disposal samples were sent for analysis. All hazcatting, waste categorization and bulk group assignments were finalized.

On November 4, 1996, transfer of liquid from the above ground storage tank was completed. Removal of sludge from the tank was also completed. Prep work for pumping the underground storage tanks was completed.

On November 5, 1996, logging of the drums generated from the above ground tank was completed. Pumping of the underground storage tanks began.

On November 6, 1996, pumping of the underground storage tanks continued. Numbering and logging of drums continued. Compressed gas cylinders were logged.

On November 7, 1996, maps of the drum staging area were completed. Excavations over the underground storage tank were backfilled. Several manufacturers/owners were identified from markings on the compressed gas cylinders. Preparations were made for overpacking operations.

On November 8, 1996, overpacking of materials began. Drum staging area maps were modified to reflect changes due to overpacking operations. Preparations for waste bulking/consolidation operations began.

3. Enforcement

No enforcement activities are currently taking place at the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Contaminated soil will be excavated.

Materials will be bulked, consolidated or transferred into shippable containers as necessary.

Transport and disposal coordination for all wastestreams will be coordinated.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of November 8, 1996.

	Cost to Date
ERCS	\$ 90,200.00
START	\$ 8,000.00
EPA	\$ 11,000.00
Total	\$109,200.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: November 18, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: R. Caspe, 2ERRD
B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-20IG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)
~~START~~

POLREP No: Five (5)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Removal activities continue. Analytical results from several of the bulk groups were positive for PCBs. Results ranged from 87 ppm to 5140 ppm. Re-sampling and analysis of individual containers in those groups has begun. Bulking of the non-PCB wastestreams has been initiated.

2. Removal Action to Date

On November 12, 1996, logging of the compressed gas cylinders was completed. PCB analytical data was received. Analytical data was reviewed and preparations were made for re-sampling several wastestreams.

On November 13, 1996, re-sampling of the PCB contaminated wastestreams began. One composite soil sample was taken from the area where the drums were originally located. Lab analysis for all samples was coordinated. Bids for the disposal of the cubic yard boxes were reviewed and bid selection approved.

On November 14, 1996, sampling was completed. Samples were packed and picked up by lab courier. Representatives from the Gloucester County Sheriffs Department were on-site to discuss operations and predicted schedules. Initial contacts with suspected compressed gas cylinder owners were made. All companies agreed to send a representative to the site to identify suspect cylinders. Bulking of the non-PCB contaminated wastestreams was initiated.

On November 15, 1996, bulking of the non-PCB wastestreams continued.

3. Enforcement

No enforcement activities are currently taking place at the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Contaminated soil will be excavated and staged until disposal can be coordinated.

Materials will be bulked, consolidated or transferred into shippable containers as necessary.

Transport and disposal coordination for all wastestreams will be coordinated.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of November 18, 1996.

	Cost to Date
ERCS	\$122,100.00
START	\$ 9,000.00
EPA	\$ 12,000.00
Total	\$143,100.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

HEADING

DATE: November 25, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: R. Caspe, 2ERRD
B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-2OIG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)

~~START~~

POLREP No: Six (6)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Removal activities continue. Resampling and analysis of individual containers has been completed and results received. Bulk group reorganization based on the analytical data has begun. Bulking of non-PCB wastestreams has been completed. Excavation of PCB contaminated soil has been initiated.

2. Removal Action to Date

On November 18, 1996, bulking of the non-PCB wastestreams continued. Arrangements were made for the delivery of roll-offs and an excavator for the soil excavation.

On November 19, 1996, bulking of the non-PCB wastestreams was completed. Roll-offs and excavator for the soil excavation were delivered. Cutting of the above ground storage tank began.

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On November 20, 1996, soil excavation began. Analytical data from the individual container sampling was received and reviewed. Bulk groups were adjusted based on PCB concentration. Groups were designated for PCB concentrations <50 ppm, 50 - 500 ppm and >500 ppm. Restaging of bulked drums was initiated.

On November 21, 1996, soil excavation and drum restaging operations continued. PPE waste was consolidated and a general site clean-up was completed.

On November 22, 1996, soil excavation and drum restaging operations continued.

3. Enforcement

No enforcement activities are currently taking place at the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Soil excavation will be completed.

Materials will be bulked, consolidated or transferred into shippable containers as necessary based on the new analytical data.

Transport and disposal coordination for all wastestreams will be coordinated.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of November 25, 1996.

	Cost to Date
ERCS	\$135,900.00
START	\$ 10,000.00
EPA	\$ 13,000.00
Total	\$158,900.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: December 2, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: R. Caspe, 2ERRD
B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-2OIG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)
—START

POLREP No: Seven (7)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers, PCBs and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Removal activities continue. Bulk group reorganization based on analytical data has been completed. Bulking of non-PCB wastestreams has been completed. Excavation of PCB contaminated soil has been completed. Bulking of the new groups continues. Shipping of material from the Site for disposal has started.

2. Removal Action to Date

On November 25, 1996, bulking of the non-PCB wastestreams continued. Suburban Propane picked up 10 propane compressed gas cylinders. Two additional roll-offs were delivered to the site. Soil excavation was completed.

On November 26, 1996, bulking operations continued. Overpacking of solid wastes was completed.

On November 27, 1996, bulking operations continued. The cubic yard boxes containing the D001 wastes were prepared for transport scheduled for 12/2/96. A general site cleanup was performed and the site was shut down for the Thanksgiving holiday and weekend.

3. Enforcement

No enforcement activities are currently taking place at the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Soil disposal will be coordinated.

Bulking operations will be completed.

Transport and disposal will be coordinated for the waste remaining at the Site.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of December 2, 1996.

	Cost to Date
ERCS	\$148,900.00
START	\$ 11,000.00
EPA	\$ 14,000.00
Total	\$173,900.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: December 9, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-2OIG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)

START

POLREP No: Eight (8)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers, PCBs and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Removal activities continue. Bulking and consolidation operations continue. Post-excavation sampling has been completed. Individual soil roll-offs have been sampled. Potentially asbestos containing materials have been sampled. All samples were sent for analysis. Disposal continued with the shipment of approximately 16,000 pounds (21-cubic yard boxes) of D001 waste from the Site.

2. Removal Action to Date

On December 2, 1996, the Site remobilized after the Thanksgiving holiday and weekend. Individual soil roll-offs were sampled. Bulking/consolidation operations resumed. Cubic yard boxes containing D001 wastes were shipped for disposal.

On December 3, 1996, bulking/consolidation operations continued. Roll-off samples were shipped for PCB analysis. The grid for post excavation soil samples was marked.

On December 4, 1996, bulking/consolidation operations continued. Post excavation soil samples were taken.

On December 5, 1996, bulking/consolidation operations continued. Samples were taken of roofing material suspected of containing asbestos. Post excavation and roofing material samples were shipped for analysis.

On December 6, 1996, bulking/consolidation operations continued.

3. Enforcement

A PRP search has been initiated for the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Soil disposal will be coordinated.

Bulking operations will be completed.

Transport and disposal will be coordinated for the waste remaining at the Site.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of December 9, 1996.

	Cost to Date
ERCS	\$161,600.00
START	\$ 12,000.00
EPA	\$ 14,000.00
Total	\$187,600.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: December 17, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
R. Byrnes, EPA-2OIG
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)

~~START~~

POLREP No: Nine (9)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
ERNS No.:	N/A
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers, PCBs and halogenated solvents. In addition, there are two underground storage tanks containing gasoline.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Removal activities continue. Analytical data for the individual roll-offs, roofing material and post-excavation samples has been received. Consolidation of the PCB oil and sludges was completed. Coordination of transport and disposal for all wastes remaining at the Site continued.

2. Removal Action to Date

On December 9, 1996, consolidation of the PCB oils and sludges continued. Analytical data for the roll-off samples was received. Concentrations ranged from 7.5 ppm to 289 ppm.

On December 10, 1996, consolidation of the PCB oils and sludges continued. A roll-off for the PPE and other decon wastes arrived on-site. Disposal schedules for the waste remaining at the Site were tentatively defined.

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On December 11, 1996, consolidation of PCB oils and sludges continued. Analytical data was received for the post-excavation samples. Concentrations ranged from .311 ppm to 189 ppm. Additional excavation was scheduled based on the data. Analytical data was received for the roofing material sample. The material does not contain asbestos.

On December 12, 1996, consolidation of PCB oils and sludges was completed. Roll-offs for the additional soil excavation arrived at the Site. Arrangements for an excavator were finalized.

On December 13, 1996, drum staging was completed. Bids for the disposal of the empty drums were received and reviewed. Breakdown of the drum bulking/consolidation area was initiated.

3. Enforcement

A PRP search has been initiated for the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

C. Next Steps

Transport and disposal will be coordinated and implemented for all waste remaining at the Site.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of December 17, 1996.

	Cost to Date
ERCS	\$173,700.00
START	\$ 12,000.00
EPA	\$ 15,000.00
 Total	 \$200,700.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: December 24, 1996

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
D. Kraft, 2DECA-PTSB
R. Byrnes, EPA-2OIG
T. Riveroso, EPA-2OPM-GCMB
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)
/ START

POLREP No: Ten (10)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	December 20, 1996 (Temporary)
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers, PCBs and halogenated solvents. In addition, there are two underground storage tanks containing a gasoline/water mix.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

All hazardous waste located at the Site has been staged for transport and disposal. Materials have been secured and the Site temporarily demobilized until facility approvals and transport schedules are finalized. Security service remains at the Site.

2. Removal Action to Date

On December 16, 1996, staging of drums is completed. Additional excavation of PCB contaminated soil was completed. Final inventory of drums is initiated.

On December 17, 1996, the final drum inventory continued. Empty drums were transported for disposal. An updated drum location map was started.

On December 18, 1996, soil samples were taken of the new excavation area and the drum bulking/consolidation area. Samples were also taken up gradient and down gradient of the soil excavation area. Review and correction of all technical data was initiated.

On December 19, 1996, the final drum inventory was completed. Mapping of the drum staging area was completed. Samples were shipped to the lab for analysis. Disposal samples were taken from the new bulk groups and stored at the Site. Compressed gas cylinders remaining at the Site were confirmed empty and secured.

On December 20, 1996, Review and correction of all Site technical data was completed. A general Site clean-up was performed. All materials at the Site were secured. The Site was partially demobilized pending transport and disposal of the staged waste.

3. Enforcement

A PRP search has been initiated for the Site.

B. Planned Removal Actions

The objective of this removal action is to eliminate the threat to public health and welfare and the environment caused by the materials abandoned at the Site. The removal action will include:

- 1.) Securing the Site.
- 2.) Stabilization of materials located at the Site.
- 3.) Inventory of materials located at the Site.
- 4.) Sampling and analysis.
- 5.) Waste categorization.
- 6.) Transportation and disposal of all hazardous wastes in accordance with EPA's CERCLA Off-Site Disposal Policy.

The selected mode of transportation and method of disposal will be based on the analytical data.

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C. Next Steps

Transport and disposal coordination will be completed.

Transport and disposal will be implemented on January 6, 1997 (tentative date pending facility scheduling).

All personnel and equipment will be demobilized upon completion of disposal.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of December 24, 1996.

	Cost to Date
ERCS	\$183,400.00
START	\$ 13,000.00
EPA	\$ 16,000.00
Total	\$212,400.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: January 31, 1997

SUBJECT: Yurgin Motors, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: B. Sprague, 2ERRD-RPB
J. Daloia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
D. Kraft, 2DECA-PTSB
R. Byrnes, EPA-2OIG
T. Riveroso, EPA-2OPM-GCMB
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)
~~START~~

POLREP No: Eleven (11)

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
CERCLIS No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Demobilization Date:	N/A
Completion Date:	N/A

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers, PCBs and halogenated solvents. In addition, there are two underground storage tanks containing a gasoline/water mix.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

Analysis of the post-excavation soil samples has been reviewed. Additional excavation of the PCB contaminated soil has been determined to be necessary. Transport and disposal of staged material has been initiated.

2. Removal Action to Date

On January 22, 1997, transport of the bulk soil was initiated. Three roll-offs of high concentration PCB contaminated soil were shipped to the CWM facility, Model City, NY.

On January 24, 1997, disposal of high concentration PCB contaminated soil continued.

On January 27, 1997, excavation of PCB contaminated soil began in the areas showing elevated PCB levels. Six roll-offs of low level PCB contaminated soil were shipped to Waste Concepts, New Castle, DE.

On January 28, 1997, soil excavation continued. Post excavation samples were taken and sent for analysis. Drum disposal began. PCB contaminated oils and sludges were shipped to the CWM facility, Port Arthur, TX for disposal. A total of 37 drums were shipped.

On January 29, 1997, soil excavation and sampling continued. Analytical results from the previous days sampling were received and reviewed. Drum disposal continued. A total of 129 drums were shipped to City Environmental in Detroit, MI for disposal. Coordination of transport and disposal of asbestos containing acetylene cylinders was initiated.

On January 30, 1997, soil excavation and sampling continued. Disposal of the PPE and the cylinders was confirmed for February 4, 1997. Transport of the low concentration PCB contaminated soil continued.

A charged cylinder of military "M7A2 Riot CS" was located in the garage area of the Site. The 60th EOD, Fort Dix, NJ was contacted and dispatched a response team to the Site. Representatives identified, packed and transported the material to their facility for proper disposal.

On January 31, 1997, analytical results from the previous days sampling were received and reviewed. Transportation of the remaining low concentration soil was coordinated. Delivery of equipment for excavation backfilling was coordinated.

3. Enforcement

A PRP search has been initiated for the Site.

B. Planned Removal Actions

Transportation and disposal of all materials remaining at the Site will be completed. Disposal methods have been selected based on the material type, quantity and analysis. Coordination of all activities necessary to demobilize the Site have been initiated

C. Next Steps

Transport and disposal will be completed.

All personnel and equipment will be demobilized upon completion of disposal.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of January 30, 1997.

	Cost to Date
ERCS	\$281,700.00
START	\$ 14,000.00
EPA	\$ 17,000.00
Total	\$312,700.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION REPORT

I. HEADING

DATE: March 18, 1997

SUBJECT: ~~Yurgin Motors~~, Mantua Twp., Gloucester County,
New Jersey

FROM: Neil J. Norrell, OSC, USEPA Region II
Response and Prevention Branch

TO: B. Sprague, 2ERRD-RPB
J. Dalioia, 2ERRD-RPB
B. Bellow, 2CD
T. Johnson, 5202G
R. Cahill, 2CD-PAT
G. Dominach, 2ERRD-RAB
D. Karlen, 2ORC-NJSFB
C. Monroe, 2ORC-NJSFB
C. Petersen, 2ERRD-NJRB
D. Kraft, 2DECA-PTSB
R. Byrnes, EPA-2OIG
T. Rivero, EPA-2OPM-GCMB
A. Brochu, 2DESA-HWSB
S. Delikat, NJDEP
J. Smolenski, NJDEP
A. Robinson, Gloucester County Sheriffs Office
ERD, Washington (E-mail)
START

POLREP No: Twelve (12) and Final

II. BACKGROUND

Site No.:	HM
Delivery Order No.:	2001-02-116
Response Authority:	CERCLA
CERCLIS No.:	NJD982790966
RCRA ID No.:	NJD982790966
NPL Status:	Non-NPL
State Notification:	NJDEP notified
Action Memorandum Status:	Approved September 13, 1996
Start Date:	September 26, 1996
Completion Date:	February 7, 1997

III. SITE INFORMATION

A. Incident Category

CERCLA Incident category: Other

Abandoned Automotive Repair Facility

B. Site Description

The Yurgin Motors Site is an abandoned automotive repair facility located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed gas cylinders containing acetylene and LPG, corrosives, ignitables, oxidizers, PCBs and halogenated solvents. In addition, there are two underground storage tanks containing a gasoline/water mix.

Refer to Polrep # 1 for more detailed information.

IV. RESPONSE INFORMATION

A. Situation

1. Current Situation

All work scheduled for the Site has been completed. Transportation of the last waste staged at the Site took place on February 6, 1997. Personnel and equipment were demobilized on February 7, 1997.

2. Removal Action to Date

On February 3, 1997, transport of bulk soils continued. Six roll-offs of low level PCB contaminated soil were shipped to Waste Concepts, New Castle, DE. One roll-off of high level PCB contaminated debris and PPE was shipped to CWM, Model City, NY. Additional excavation was performed in the grids with PCB concentrations >10 ppm. Samples were taken and sent for analysis.

On February 4, 1997, analytical results confirmed that all areas of the excavation were below 10 ppm. Backfilling of the excavation was completed. Roll-offs were scheduled for transport to the appropriate facilities.

On February 5, 1997, demobilization of equipment from the Site began. Transport schedules for the remaining bulk soil roll-offs were confirmed. A general clean-up of the Site was initiated.

3. On February 6, 1997, the remaining bulk soil roll-offs were transported from the Site. Two low PCB concentration roll-offs were transported to Waste Concepts, New Castle, DE. One high PCB concentration roll-off was transported to CWM, Model City, NY. Site utility disconnection schedules were finalized. Located in Mantua Township, Gloucester County, New Jersey. Materials located at the Site include: compressed air cylinders, 30-gallon drums, and 55-gallon drums. On February 7, 1997, a general Site clean-up was completed. All remaining equipment and personnel were demobilized. In addition, there are two underground storage tanks (USTs) located at the Site. Enforcement of the Resource Conservation and Recovery Act (RCRA) is in progress.

A PRP search for the Site is in progress.

B. Planned Removal Actions

Transportation and disposal of all materials identified at the Site has been completed. Disposal methods were selected based on the material type, quantity and analysis. The Site has been demobilized.

C. Next Steps

All removal activities have been completed. No additional work is anticipated at the Site. A disposal summary is attached to this Pollution Report.

D. Key Issues

None

V. Cost Information

The following information is estimated cost for the removal action as of March 7, 1997.

	Cost to Date
ERCS	\$332,850.00
START	\$ 16,000.00
EPA	\$ 20,000.00
Total	\$368,850.00

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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YURGIN MOTORS SITE

945 Bridgeton Pike (Rt. 45)

Mantua, NJ

NJD982790966

EPA

START

EPA

WASTE DISPOSAL SUMMARY

Total

1998 100.00

FACILITY	LOCATION	WASTE TYPE	QUANTITY
Waste Concepts	New Castle, DE	Bulk Soil >50 ppm PCB	295 tons (est.) (255 cu yds est.)
CWM	Model City, NY	Bulk Soil >50 ppm PCB	105 tons (est.) (90 cu yds est.)
CWM	Model City, NY	PPE/Debris >50 ppm PCB	8 tons (est.) (20 cu yds est.)
LWD Environmental	Calvert City, KY	D001	21 X 1cu yd box
City Environmental	Detroit, MI	D001 F002 Tar/Grease Mix Oil/Grease Mix Oil/Water Mix	6 drums 2 drums 45 drums 12 drums 64 drums
CWM	Port Arthur, TX	Oil/Sludge Mix >50 ppm PCB	37 drums
Grand Central Sanitary Landfill	Pen Argyl, PA	Acetylene Cylinders (Asbestos Core)	8 cylinders
60th EOD	Fort Dix, NJ	M7A2 Riot CS	1 cylinder
Pat Kelly Drums	New Hope, PA	Empty Drums	210 drums
Suburban Propane	Woodbury, NJ	Empty Propane Cylinders	10 cylinders

**YURGIN MOTORS SITE
MANTUA TOWNSHIP, NJ**

REGION: IINPL: No

ESTIMATED PROJECT COSTS: \$744,000 OSC: Norrell

INCIDENT CATEGORY: Abandoned Auto Repair/Recycling Facility

START DATE: 9/5/96 COMPLETION DATE: 2/7/97

INCIDENT DESCRIPTION:

Yurgin Motors Site is an abandoned automotive repair/recycling facility located at 945 Bridgeton Pike, Mantua Township, New Jersey. On May 20, 1996, EPA received a removal request from the NJDEP. On September 5, 1996, EPA conducted a removal site assessment and confirmed the presence of approximately 200 drums, 19 compressed gas cylinders and approximately 2500 small containers. Field analysis confirmed the presence of materials meeting the criteria of hazardous waste for the characteristics of ignitability and corrosivity.

MATERIALS:

Materials at the site included: compressed gas cylinders containing acetylene and LPG; corrosives; ignitables; oxidizers; halogenated solvents and PCB contaminated oils, sludges and soil.

THREATS:

Many of the materials on the Site were flammable and/or corrosive and presented a risk of direct human contact. Materials were stored without regard for compatibility and the structures in which they were stored were in extremely poor condition. Due to the presence of flammable liquids the threat of fire at the facility did exist. Had a fire occurred it could have involved most of the material found at the Site. The toxic fumes created by the uncontrolled combustion of these materials could have impacted the surrounding residents, possibly necessitating an evacuation and the closure of county roads.

Soil contamination was visible on the property. The soil, primarily fine and medium grain sand, has a high rate of permeability, significantly contributing to the possibility of groundwater contamination.

ACTIONS:

On September 5, 1996, EPA conducted a removal site assessment. The Action Memorandum was approved on September 13, 1996. Removal activities were initiated on September 26, 1996, and completed on February 7, 1997.

PRESENT STATUS:

All planned removal activities have been completed. No further actions are anticipated.

REFERENCE NO. 19



O.H. Remediation
Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

170476

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME <i>Virgin Motors</i>		PROJECT LOCATION <i>Virgin Motors</i>		NUMBER OF CONTAINERS		ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) <i>PCBS</i>										REMARKS		
PROJ. NO. <i>19223</i>	PROJECT CONTACT <i>DOO KING</i>	PROJECT TELEPHONE NO. <i>609-478-4984</i>																
CLIENT'S REPRESENTATIVE <i>USDA - ER</i>		PROJECT MANAGER/SUPERVISOR <i>DOO KING</i>																
ITEM NO.	SAMPLE NUMBER	DATE	TIME														COMP	GRAB
1	D-003	11/13/91	1131		X		1602	X										
2	D-008	11/13/91	1145		X		1602	X										
3	D-036	11/14/91	1450		X		1602	X										
4	D-037	11/14/91	1453		X		1602	X										
5	D-038	11/14/91	1455		X		1602	X										
6	D-062	11/15/91	1439		X		802	X										
7	D-064	11/17/91	1444		X		802	X										
8	D-067	11/18/91	1447		X		802	X										
9	D-069	11/18/91	1450		X		802	X										
10	D-070	11/18/91	1451		X		802	X										

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	1-10	<i>John P. Stief</i>	<i>Kathy R. Bent</i>	11/18/91	1130	<i>* Analyze only the organic heavy</i> <i>72 hr TAT</i>
2						
3						
4						

SAMPLER'S SIGNATURE
John P. Stief *11/21/91*

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

170477

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3528

PROJECT NAME <i>Yugo Motors</i>		PROJECT LOCATION <i>Manhwa NJ</i>		NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) <i>90</i> <i>8</i> <i>PCB's</i> <i>88</i> <i>82</i>													
PROJ. NO. <i>15223</i>	PROJECT CONTACT <i>TODD KINF</i>		PROJECT TELEPHONE NO. <i>609-478-4984</i>															
CLIENT'S REPRESENTATIVE <i>USPA-IT</i>		PROJECT MANAGER/SUPERVISOR <i>TODD KINF</i>																
ITEM NO.	SAMPLE NUMBER	DATE	TIME												COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	REMARKS
1	D-072	11/13/96	1457		X		802	X										
2	D-075	11/13/96	1501		X		802	X										
3	D-104	11/13/96	1504		X		802	X										
4	D-1002	11/13/96	1507		X		1602	X										
5	D-007	11/13/96	1510		X		1602	X										
6	D-009	11/13/96	1518		X		1602	X										
7	D-012	11/13/96	1515		X		1602	X										
8	D-020	11/13/96	1517		X		1602	X										
9	D-023	11/13/96	1520		X		1602	X										
10	D-025	11/14/96	1522		X		1602	X										

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	D072-D025	<i>Todd Kinf</i>	<i>Kurt Kinf</i>	11/14/96	1020	<i>72 hr TAT</i>
2						
3						
4						SAMPLER'S SIGNATURE <i>W.P. Stog</i> <i>Imp #17724</i>

CHAIN-OF-CUSTODY RECORD

170479

O.H. MATERIALS CORP.

P.O. BOX 551

FINDLAY, OH 45839-0551

419-423-3526

[illegible]

CHAIN-OF-CUSTODY RECORD

170490

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME Yursin Motors						PROJECT LOCATION Mantua, NJ						NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) <i>PCBS</i>															
PROJ. NO. 19223						PROJECT CONTACT Todd King																	PROJECT TELEPHONE NO. 609-478-4984					
CLIENT'S REPRESENTATIVE USEPA-II						PROJECT MANAGER/SUPERVISOR Todd King																						
ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)							REMARKS															
1	D-076	11/13/96	1559		X							802	X															
2	D-077	11/13/96	1603		X							802	X															
3	D-100	11/14/96	1605		X							802	X															
4	D-101	11/13/96	1602		X							802	X															
5	D-102	11/13/96	1610		X							802	X															
6	D-114	11/13/96	1614		X							1602	X															
7	D-115	11/13/96	1617		X							1602	X															
8	D-117	11/14/96	1600		X							1602	X															
9	D-118	11/13/96	1623		X							1602	X															
10	D-124	11/14/96	1625		X							1602	X															
TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY				TRANSFERS ACCEPTED BY				DATE	TIME	REMARKS																
1	D-076-D-124	<i>Todd King</i>				<i>Keith Robert</i>				11/14/96	1030	72 hr TAT																
2																												
3																												
4																												
												SAMPLER'S SIGNATURE <i>Th. P. Stodg</i> Emp # 7924																

CHAIN-OF-CUSTODY RECORD

170488

O.H. MATERIALS CORP.

P.O. BOX 551

FINDLAY, OH 45839-0551

419-423-3526

PROJECT NAME

PROJECT LOCATION

Yürgin Motors

Mantua, NJ

PROJ. NO.

PROJECT CONTACT

PROJECT TELEPHONE NO. _____

609-478-4984

CLIENT'S REPRESENTATIVE

PROJECT MANAGER/SUPERVISOR

USE PA - $\frac{1}{11}$

Todd King

NUMBER
OF CONTAINERS

ANALYSIS DESIRED
(INDICATE
SEPARATE
CONTAINERS)

REMARKS

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	N OF C	<i>P.L.D.</i>								REMARKS
1	D-126	11/13/96	1638		X		1602	X								
2	D-127	11/13/96	1632		X		1602	X								
3	D-142	11/13/96	1635		X		1602	X								
4	D-145	11/13/96	1638		X		1602	X								
5	D-145 (15)	11/13/96	(1635)													
6	D-148	11/13/96	1642		X		1602	X								
7	D-156	11/13/96	1645		X		1602	X								
8	D-157	11/13/96	1648		X		1602	X								
9	D-158	11/13/96	1652		X		1602	X								
10	D-159	11/13/96	1655		X		1602	X								

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	D126-D159	<i>[Signature]</i>	Keith Robert	11/14/96	1030	22 hr. TROT
2						
3						
4						SAMPLER'S SIGNATURE <i>[Signature]</i> Emp # 7924



OIRM Remediation
Services Corp.

CHAIN-OF-CUSTODY RECORD

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Field Technical Services
Rev. 08/89

170489

O.H. MATERIALS CORP.		P.O. BOX 551		FINDLAY, OH 45839-0551		419-423-3528	
PROJECT NAME Yurgin Motors				PROJECT LOCATION Mantua, NJ			
PROJ. NO. 19893		PROJECT CONTACT Todd King		PROJECT TELEPHONE NO. 609-478-4984		ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)	
CLIENT'S REPRESENTATIVE USEPA - II				PROJECT MANAGER/SUPERVISOR Todd King			
NUMBER OF CONTAINERS							
ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	REMARKS
1	D-160	11/13/96	1700		X		
2	D-168	11/13/96	1704		X		
3	D-170	11/13/96	1708		X		
4	D-004	11/13/96	1713		X		
5	D-006	11/13/96	1717		X		
6	D-013	11/13/96	1718		X		
7	D-014	11/14/96	1720		X		
8	D-063	11/14/96	1725		X		
9	D-113	11/14/96	1100		X		
10	D-116	11/14/96	1103		X		
TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY		TRANSFERS ACCEPTED BY		DATE	TIME
1	D160-D116	[Signature]		Kerth Robert		11/14/96	1030
2							
3							
4							
REMARKS						72 hr TAT	
SAMPLER'S SIGNATURE						Emp # 7924	

CHAIN-OF-CUSTODY RECORD

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170480

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME Yurgin Motors		PROJECT LOCATION Mantua, NJ		NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)												REMARKS	
PROJ. NO. 19803	PROJECT CONTACT		PROJECT TELEPHONE NO. 609-478-4984		<div style="text-align: center;">PCBS</div>													
CLIENT'S REPRESENTATIVE USEPA-10		PROJECT MANAGER/SUPERVISOR Todd King																
ITEM NO.	SAMPLE NUMBER	DATE	TIME															COMP
1	D-119	11/13/96	1106		X		1602	X										
2	D-122	11/13/96	1110		X		1602	X										
3	D-123	11/13/96	1113		X		1602	X										
4	D-130	11/13/96	1115		X		1602	X										
5	D-149	11/13/96	1118		X		1602	X										
6	D-150	11/13/96	1120		X		1602	X										
7	D-152	11/13/96	1123		X		1602	X										
8	D-154	11/13/96	1127		X		1602	X										
9	D-155	11/13/96	1126		X		1602	X										
10	D-161	11/13/96	1133		X		1602	X										

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	D-161	<i>Todd King</i>	<i>Kurti Behr</i>	11/14/96	1030	72 hr. TAT
2						
3						
4						SAMPLER'S SIGNATURE <i>Ken P. Stog</i> Emp # 7924

CHAIN-OF-CUSTODY RECORD

170488

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME Yorgin Motors		PROJECT LOCATION Mantua, NJ		ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)					
PROJ. NO. 19933	PROJECT CONTACT Todd King	PROJECT TELEPHONE NO. 609-478-4984							
CLIENT'S REPRESENTATIVE USEPA-II		PROJECT MANAGER/SUPERVISOR Todd King							
ITEM NO.	SAMPLE NUMBER	DATE	TIME			COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS
1	D-162	11/13/96	1135	(15)	X		16oz		
2	D-162	11/14/96	1135		X		16oz	X	
3	D-010	11/13/96	1138		X		8oz 16oz	X	
4	D-040	11/13/96	1140		X		16oz	X	
5	D-046	11/13/96	1144		X		8oz 16oz	X	
6	D-047	11/13/96	1147		X		8oz	X	
7	D-048	11/13/96	1150		X		8oz	X	
8	D-049	11/13/96	1154		X		8oz	X	
9	D-050	11/13/96	1157		X		8oz	X	
10	D-051	11/14/96	1200		X		8oz	X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	D162-D051	<i>[Signature]</i>	Kerth Robert	11/14/96	1030	72 hr. PAT
2						
3						
4						

SAMPLER'S SIGNATURE: *[Signature]* Emp # 7924



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170482

O.H. MATERIALS CORP.		P.O. BOX 551		FINDLAY, OH 45839-0551		419-423-3526	
PROJECT NAME Yurgin Major S				PROJECT LOCATION Mantua, NJ			
PROJ. NO. 19203		PROJECT CONTACT Todd King		PROJECT TELEPHONE NO. 609-478-4954			
CLIENT'S REPRESENTATIVE USEPA-II				PROJECT MANAGER/SUPERVISOR Todd King			
ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS
1	D-052	11/13/96	1204		X		802
2	D-053	11/13/96	1208		X		802
3	D-055	11/17/96	1211		X		802
4	D-056	11/17/96	1214		X		802
5	D-057	11/17/96	1217		X		802
6	D-065	11/17/96	1220		X		802
7	D-078	11/17/96	1223		X		802
8	D-080	11/17/96	1230		X		802
9	D-081	11/17/96	1233		X		802
10	D-082	11/17/96	1236		X		802
ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)							
REMARKS							
TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY		TRANSFERS ACCEPTED BY		DATE	TIME
1	D052-D082	[Signature]		Karl R. Robert		11/17/96	1030
2							
3							
4							
REMARKS 72 hr. SAT							
SAMPLER'S SIGNATURE [Signature] Emp 7924							

CHAIN-OF-CUSTODY RECORD

170483

O.H. MATERIALS CORP.

P.O. BOX 551

FINDLAY, OH 45839-0551

419-423-3526

PROJECT NAME		PROJECT LOCATION		NUMBER OF CONTAINERS		ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)										REMARKS		
PROJ. NO.		PROJECT CONTACT				PROJECT TELEPHONE NO.		<div style="text-align: center;">PCB's</div>										
CLIENT'S REPRESENTATIVE		PROJECT MANAGER/SUPERVISOR																
ITEM NO.	SAMPLE NUMBER	DATE	TIME			COMP	GRAB											SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)
Yurgin, Molokai		Manua, NJ																
19983		Todd King		609-478-4984														
USEPA-II		Todd King																
1	D-079	11/13/90	1226		X		802	X										
2	D-083	11/13/90	1240		X		802	X										
3	D-084	11/13/90	1244		X		802	X										
4	D-085	11/13/90	1247		X		802	X										
5	D-086	11/13/90	1250		X		802	X										
6	D-087	11/13/90	1253		X		802	X										
7	D-088	11/13/90	1255		X		802	X										
8	D-089	11/13/90	1259		X		802	X										
9	D-090	11/13/90	1304		X		802	X										
10	D-091	11/13/90	1310		X		802	X										
TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY		TRANSFERS ACCEPTED BY		DATE	TIME	REMARKS										
1	D-079-D-091	Todd King		Keith Reiser		11/14/90	1030	72 hr TAT										
2																		
3																		
4								SAMPLER'S SIGNATURE Kim P. Gull Emp # 7724										

CHAIN-OF-CUSTODY RECORD

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Field Technical Services
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170489

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PROJECT NAME		PROJECT LOCATION		NUMBER OF CONTAINERS		ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)										REMARKS	
PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.															
CLIENT'S REPRESENTATIVE		PROJECT MANAGER/SUPERVISOR															
Yorgin Motors		Manhwa, NJ															
19923				609-478-4984													
USEPA-II		Todd King															
ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)										REMARKS	
1	D-098	11/12/96	1313		X												
2	D-094	11/13/96	1315		X												
3	D-099	11/12/96	1318		X												
4	D-108	11/14/96	1322		X												
5	D-111	11/12/96	1325		X												
6	D-131	11/12/96	1328		X												
7	D-132	11/13/96	1332		X												
8	D-133	11/13/96	1335		X												
9	D-135	11/13/96	1338		X												
10	D-137	11/13/96	1340		X												
TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY		TRANSFERS ACCEPTED BY		DATE	TIME	REMARKS									
1	D092-D137	[Signature]		Kerth Robert		11/14/96	1030	724 TAT									
2																	
3																	
4								SAMPLER'S SIGNATURE [Signature] Env # 7924									



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Services Corp.

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170485

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PROJECT NAME		PROJECT LOCATION		ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)		REMARKS	
Yurgin Motor		Manhwa, NJ					
PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.					
1989-3		609-478-4987					
CLIENT'S REPRESENTATIVE		PROJECT MANAGER/SUPERVISOR		NUMBER OF CONTAINERS			
USEPA-II		Todd King					
ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	
1	D-143	11/13/96	1339		X		X
2	D-151	11/13/96	1348		X		16oz X
3	D-153	11/13/96	1352		X		16oz X
4	D-164	11/13/96	1356		X		16oz X
5	D-054	11/13/96	1400		X		16oz X
6	D-129	11/13/96	1404		X		16oz X
7	D-138	11/13/96	1407		X		16oz X
8	D-163	11/13/96	1411		X		16oz X
9	D-165	11/13/96	1414		X		16oz X
10	D-171	11/13/96	1418		X		16oz X

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	D143-D171	<i>[Signature]</i>	<i>[Signature]</i>	11/14/96	1030	72 hr. TAT
2						
3						
4						

SAMPLE'S SIGNATURE
[Signature] Emp # 7924

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	1861	MATRIX	OIL
SAMPLE NUMBER	9621707	DILUTION FACTOR	10
DATA FILE	>G6287	DATE EXTRACTED	11/16/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/18/96
FIELD ID	003	ANALYZED BY	MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
 SAMPLE NUMBER 9621589
 DATA FILE >G6191
 CLIENT NAME OHMRSC
 FIELD ID 003

MATRIX oil
 DILUTION FACTOR 10
 DATE EXTRACTED 11/14/96
 DATE ANALYZED 11/14/96
 ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621590
DATA FILE >G6192
CLIENT NAME OHMRSC
FIELD ID 008

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/14/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	HDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below HDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621591
DATA FILE >G6193
CLIENT NAME OHMRSC
FIELD ID 036

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/14/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621592
DATA FILE >G6194
CLIENT NAME OHMRSC
FIELD ID 037

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621593
DATA FILE >G6195
CLIENT NAME OHMRSC
FIELD ID 038

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621594
DATA FILE >G6196
CLIENT NAME OHMRSC
FIELD ID 062

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621595
DATA FILE >G6197
CLIENT NAME OHMRSC
FIELD ID 064

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621596
DATA FILE >G6198
CLIENT NAME OHMRSC
FIELD ID 067

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621597
DATA FILE >G6199
CLIENT NAME OHMRSC
FIELD ID 069

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621598
DATA FILE >G6200
CLIENT NAME OHMRSC
FIELD ID 070

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621599
DATA FILE >G6201
CLIENT NAME OHMRSC
FIELD ID 072

MATRIX OIL
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621600
DATA FILE >66202
CLIENT NAME OHMRSC
FIELD ID 075

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621601
DATA FILE >G6203
CLIENT NAME OHMRSC
FIELD ID 104

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/14/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	2.41 J	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621602
DATA FILE >A8584
CLIENT NAME OHMRSC
FIELD ID 002

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.643
11104282	Aroclor-1221	U	.643
11141165	Aroclor-1232	U	.643
53469219	Aroclor-1242	U	.643
12672296	Aroclor-1248	U	.643
11097691	Aroclor-1254	U	.643
11096825	Aroclor-1260	99.1	.643

Percent Solid of 77.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621603
DATA FILE >AB585
CLIENT NAME OHMRSC
FIELD ID 007

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	.561
11104282	Aroclor-1221	U	.561
11141165	Aroclor-1232	U	.561
53469219	Aroclor-1242	U	.561
12672296	Aroclor-1248	U	.561
11097691	Aroclor-1254	U	.561
11096825	Aroclor-1260	1.83	.561

Percent Solid of 89.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621604
DATA FILE >A8586
CLIENT NAME OHMRSC
FIELD ID 009

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	17.1
11104282	Aroclor-1221	U	17.1
11141165	Aroclor-1232	U	17.1
53469219	Aroclor-1242	U	17.1
12672296	Aroclor-1248	U	17.1
11097691	Aroclor-1254	U	17.1
11096825	Aroclor-1260	1820	17.1

Percent Solid of 29.3 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621605
DATA FILE >A8587
CLIENT NAME OHMRSC
FIELD ID 012

MATRIX Sludge
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.567
11104282	Aroclor-1221	U	.567
11141165	Aroclor-1232	U	.567
53469219	Aroclor-1242	U	.567
12672296	Aroclor-1248	U	.567
11097691	Aroclor-1254	U	.567
11096825	Aroclor-1260	U	.567

Percent Solid of 29.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621606
DATA FILE >A8588
CLIENT NAME OHMRSC
FIELD ID 020

MATRIX Sludge
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.239
11104282	Aroclor-1221	U	.239
11141165	Aroclor-1232	U	.239
53469219	Aroclor-1242	U	.239
12672296	Aroclor-1248	U	.239
11097691	Aroclor-1254	U	.239
11096825	Aroclor-1260	U	.239

Percent Solid of 69.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621607
DATA FILE >A8589
CLIENT NAME OHMRSC
FIELD ID 023

MATRIX Sludge
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.255
11104282	Aroclor-1221	U	.255
11141165	Aroclor-1232	U	.255
53469219	Aroclor-1242	U	.255
12672296	Aroclor-1248	U	.255
11097691	Aroclor-1254	U	.255
11096825	Aroclor-1260	33.1	.255

Percent Solid of 65.3 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621608
DATA FILE >A8590
CLIENT NAME OHMRSC
FIELD ID 025

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	7.82
11104282	Aroclor-1221	U	7.82
11141165	Aroclor-1232	U	7.82
53469219	Aroclor-1242	U	7.82
12672296	Aroclor-1248	U	7.82
11097691	Aroclor-1254	U	7.82
11096825	Aroclor-1260	U	7.82

Percent Solid of 63.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621609
DATA FILE >A8591
CLIENT NAME OHMRSC
FIELD ID 027

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	8.46
11104282	Aroclor-1221	U	8.46
11141165	Aroclor-1232	U	8.46
53469219	Aroclor-1242	U	8.46
12672296	Aroclor-1248	U	8.46
11097691	Aroclor-1254	U	8.46
11096825	Aroclor-1260	U	8.46

Percent Solid of 59.1 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621610
DATA FILE >A8592
CLIENT NAME OHMRSC
FIELD ID 028

MATRIX Sludge
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.275
11104282	Aroclor-1221	U	.275
11141165	Aroclor-1232	U	.275
53469219	Aroclor-1242	U	.275
12672296	Aroclor-1248	U	.275
11097691	Aroclor-1254	U	.275
11096825	Aroclor-1260	.268 J	.275

Percent Solid of 60.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621611
DATA FILE >A8593
CLIENT NAME OHMRSC
FIELD ID 030

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	8.38
11104282	Aroclor-1221	U	8.38
11141165	Aroclor-1232	U	8.38
53469219	Aroclor-1242	U	8.38
12672296	Aroclor-1248	U	8.38
11097691	Aroclor-1254	U	8.38
11096825	Aroclor-1260	34.7	8.38

Percent Solid of 59.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621612
DATA FILE >G6290
CLIENT NAME OHMRSC
FIELD ID 035

MATRIX Aqueous
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/L	MDL
12674112	Aroclor-1016	U	.005
11104282	Aroclor-1221	U	.005
11141165	Aroclor-1232	U	.005
53469219	Aroclor-1242	U	.005
12672296	Aroclor-1248	U	.005
11097691	Aroclor-1254	U	.005
11096825	Aroclor-1260	U	.005

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- W - Result exceeds specific ground water quality criteria.*

* Flags are based on Specific Ground Water Quality Criteria from New Jersey Register dated February 1, 1993.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621613
DATA FILE >A8594
CLIENT NAME OHMRSC
FIELD ID 043

MATRIX oil
DILUTION FACTOR 1
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	U	.500

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621614
DATA FILE >A8595
CLIENT NAME OHMRSC
FIELD ID 045

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	7.12
11104282	Aroclor-1221	U	7.12
11141165	Aroclor-1232	U	7.12
53469219	Aroclor-1242	U	7.12
12672296	Aroclor-1248	U	7.12
11097691	Aroclor-1254	U	7.12
11096825	Aroclor-1260	840	7.12

Percent Solid of 70.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621615
DATA FILE >A8596
CLIENT NAME OHMRSC
FIELD ID 059

MATRIX Solid
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	.170
11104282	Aroclor-1221	U	.170
11141165	Aroclor-1232	U	.170
53469219	Aroclor-1242	U	.170
12672296	Aroclor-1248	U	.170
11097691	Aroclor-1254	U	.170
11096825	Aroclor-1260	2.40	.170

Percent Solid of 97.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621616
DATA FILE >A8597
CLIENT NAME OHMRSC
FIELD ID 060

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	6.49
11104282	Aroclor-1221	U	6.49
11141165	Aroclor-1232	U	6.49
53469219	Aroclor-1242	U	6.49
12672296	Aroclor-1248	U	6.49
11097691	Aroclor-1254	U	6.49
11096825	Aroclor-1260	9.67	6.49

Percent Solid of 77.1 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621617
DATA FILE >A8598
CLIENT NAME OHMRSC
FIELD ID 061

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	10.3
11104282	Aroclor-1221	U	10.3
11141165	Aroclor-1232	U	10.3
53469219	Aroclor-1242	U	10.3
12672296	Aroclor-1248	U	10.3
11097691	Aroclor-1254	U	10.3
11096825	Aroclor-1260	U	10.3

Percent Solid of 48.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621618
DATA FILE >A8599
CLIENT NAME OHMRSC
FIELD ID 074

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	9.96
11104282	Aroclor-1221	U	9.96
11141165	Aroclor-1232	U	9.96
53469219	Aroclor-1242	U	9.96
12672296	Aroclor-1248	U	9.96
11097691	Aroclor-1254	U	9.96
11096825	Aroclor-1260	U	9.96

Percent Solid of 50.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621619
DATA FILE >A8600
CLIENT NAME OHMRSC
FIELD ID 119

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	318	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621620
DATA FILE >A8601
CLIENT NAME OHMRSC
FIELD ID 122

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	60.1	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621621
DATA FILE >A8602
CLIENT NAME OHMRSC
FIELD ID 123

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	293	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621622
DATA FILE >A8603
CLIENT NAME OHMRSC
FIELD ID 130

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	542	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621623
DATA FILE >G6213
CLIENT NAME OHMRSC
FIELD ID 149

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.06
11104282	Aroclor-1221	U	5.06
11141165	Aroclor-1232	U	5.06
53469219	Aroclor-1242	U	5.06
12672296	Aroclor-1248	U	5.06
11097691	Aroclor-1254	U	5.06
11096825	Aroclor-1260	U	5.06

Percent Solid of 98.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621624
DATA FILE >G6214
CLIENT NAME OHMRSC
FIELD ID 150

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621625
DATA FILE >G6215
CLIENT NAME OHMRSC
FIELD ID 152

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.529
11104282	Aroclor-1221	U	.529
11141165	Aroclor-1232	U	.529
53469219	Aroclor-1242	U	.529
12672296	Aroclor-1248	U	.529
11097691	Aroclor-1254	U	.529
11096825	Aroclor-1260	U	.529

Percent Solid of 94.6 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621626
DATA FILE >G6216
CLIENT NAME OHMRSC
FIELD ID 154

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.520
11104282	Aroclor-1221	U	.520
11141165	Aroclor-1232	U	.520
53469219	Aroclor-1242	U	.520
12672296	Aroclor-1248	U	.520
11097691	Aroclor-1254	U	.520
11096825	Aroclor-1260	U	.520

Percent Solid of 96.1 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	1861	MATRIX	Sludge
SAMPLE NUMBER	9621627	DILUTION FACTOR	30
DATA FILE	>G6217	DATE EXTRACTED	11/15/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/15/96
FIELD ID	155	ANALYZED BY	MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.517
11104282	Aroclor-1221	U	.517
11141165	Aroclor-1232	U	.517
53469219	Aroclor-1242	U	.517
12672296	Aroclor-1248	U	.517
11097691	Aroclor-1254	U	.517
11096825	Aroclor-1260	U	.517

Percent Solid of 96.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC.
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621628
DATA FILE >G6218
CLIENT NAME OHMRSC
FIELD ID 161

MATRIX OIL
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621629
DATA FILE >G6219
CLIENT NAME OHMRSC
FIELD ID 162

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.507
11104282	Aroclor-1221	U	.507
11141165	Aroclor-1232	U	.507
53469219	Aroclor-1242	U	.507
12672296	Aroclor-1248	U	.507
11097691	Aroclor-1254	U	.507
11096825	Aroclor-1260	U	.507

Percent Solid of 98.6 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621630
DATA FILE >G6220
CLIENT NAME OHMRSC
FIELD ID 010

MATRIX OIL
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621631
DATA FILE >G6221
CLIENT NAME OHMRSC
FIELD ID 040

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/15/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
 SAMPLE NUMBER 9621632
 DATA FILE >G6222
 CLIENT NAME OHMRSC
 FIELD ID 046

MATRIX OIL
 DILUTION FACTOR 10
 DATE EXTRACTED 11/15/96
 DATE ANALYZED 11/15/96
 ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	10900 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621632DL 100
DATA FILE >G6272
CLIENT NAME OHMRSC
FIELD ID 046

MATRIX OIL
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	30500 D	500

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621633
DATA FILE >G6223
CLIENT NAME OHMRSC
FIELD ID 047

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11700 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621633DL 100
DATA FILE >G6273
CLIENT NAME OHMRSC
FIELD ID 047

MATRIX Oil
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	34100 D	500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621634
DATA FILE >G6224
CLIENT NAME OHMRSC
FIELD ID 048

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11500 E	5.00

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621634DL 100
DATA FILE >G6274
CLIENT NAME OHMRSC
FIELD ID 048

MATRIX Oil
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	31600 D	500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621635
DATA FILE >G6225
CLIENT NAME OHMRSC
FIELD ID 049

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	6.93
11104282	Aroclor-1221	U	6.93
11141165	Aroclor-1232	U	6.93
53469219	Aroclor-1242	U	6.93
12672296	Aroclor-1248	U	6.93
11097691	Aroclor-1254	U	6.93
11096825	Aroclor-1260	16600 E	6.93

Percent Solid of 72.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621635DL 100
DATA FILE >G6275
CLIENT NAME OHMRSC
FIELD ID 049

MATRIX Sludge
DILUTION FACTOR 30000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	693
11104282	Aroclor-1221	U	693
11141165	Aroclor-1232	U	693
53469219	Aroclor-1242	U	693
12672296	Aroclor-1248	U	693
11097691	Aroclor-1254	U	693
11096825	Aroclor-1260	50200 D	693

Percent Solid of 72.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621636
DATA FILE >G6226
CLIENT NAME OHMRSC
FIELD ID 050

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	6.10
11104282	Aroclor-1221	U	6.10
11141165	Aroclor-1232	U	6.10
53469219	Aroclor-1242	U	6.10
12672296	Aroclor-1248	U	6.10
11097691	Aroclor-1254	U	6.10
11096825	Aroclor-1260	17900 E	6.10

Percent Solid of 8.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 96216360L 100
DATA FILE >G6276
CLIENT NAME OHMRSC
FIELD ID 050

MATRIX Sludge
DILUTION FACTOR 3000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	610
11104282	Aroclor-1221	U	610
11141165	Aroclor-1232	U	610
53469219	Aroclor-1242	U	610
12672296	Aroclor-1248	U	610
11097691	Aroclor-1254	U	610
11096825	Aroclor-1260	103000 D	610

Percent Solid of 8.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	1861	MATRIX	Oil
SAMPLE NUMBER	9621637	DILUTION FACTOR	10
DATA FILE	>G6227	DATE EXTRACTED	11/15/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/16/96
FIELD ID	051	ANALYZED BY	MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	12000 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621637DL 100
DATA FILE >G6277
CLIENT NAME OHMRSC
FIELD ID 051

MATRIX Oil
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	36300 D	500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621638
DATA FILE >G6228
CLIENT NAME OHMRSC
FIELD ID 052

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	12300 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 96216380L 100
DATA FILE >G6278
CLIENT NAME OHMRSC
FIELD ID 052

MATRIX OIL
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	39800 D	500

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621639
DATA FILE >G6229
CLIENT NAME OHMRSC
FIELD ID 053

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	10800 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621639DL 100
DATA FILE >G6279
CLIENT NAME OHMRSC
FIELD ID 053

MATRIX oil
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	27400 D	500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621640
DATA FILE >G6230
CLIENT NAME OHMRSC
FIELD ID 055

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	9270 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621640DL 100
DATA FILE >G6280
CLIENT NAME OHMRSC
FIELD ID 055

MATRIX Oil
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	19000 D	500

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621641
DATA FILE >G6231
CLIENT NAME OHMRSC
FIELD ID 056

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	8480 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621641DL 100
DATA FILE >G6281
CLIENT NAME OHMRSC
FIELD ID 056

MATRIX Oil
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	14500 D	500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621642
DATA FILE >G6232
CLIENT NAME OHMRSC
FIELD ID 057

MATRIX OIL
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	12200 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621642DL 100
DATA FILE >G6282
CLIENT NAME OHMRSC
FIELD ID 057

MATRIX OIL
DILUTION FACTOR 1000
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	500
11104282	Aroclor-1221	U	500
11141165	Aroclor-1232	U	500
53469219	Aroclor-1242	U	500
12672296	Aroclor-1248	U	500
11097691	Aroclor-1254	U	500
11096825	Aroclor-1260	33700 D	500

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621643
DATA FILE >G6242
CLIENT NAME OHMRSC
FIELD ID 065

MATRIX Solid
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	.175
11104282	Aroclor-1221	U	.175
11141165	Aroclor-1232	U	.175
53469219	Aroclor-1242	U	.175
12672296	Aroclor-1248	U	.175
11097691	Aroclor-1254	U	.175
11096825	Aroclor-1260	.815	.175

Percent Solid of 95.0 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621644
DATA FILE >G6243
CLIENT NAME OHMRSC
FIELD ID 078

MATRIX oil
DILUTION FACTOR 1
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	1390 E	.500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621648
DATA FILE >G6247
CLIENT NAME OHMRSC
FIELD ID 079

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11600 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621645
DATA FILE >G6244
CLIENT NAME OHMRSC
FIELD ID 080

MATRIX Oil
DILUTION FACTOR 1
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	1910 E	.500

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
 SAMPLE NUMBER 9621646
 DATA FILE >G6245
 CLIENT NAME OHMRSC
 FIELD ID 081

MATRIX Oil
 DILUTION FACTOR 10
 DATE EXTRACTED 11/15/96
 DATE ANALYZED 11/16/96
 ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11100 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621647
DATA FILE >G6246
CLIENT NAME OHMRSC
FIELD ID 082

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	10100 E	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621649
DATA FILE >G6248
CLIENT NAME OHMRSC
FIELD ID 083

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	12400 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621650
DATA FILE >G6249
CLIENT NAME OHMRSC
FIELD ID 084

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	12400 E	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621651
DATA FILE >G6250
CLIENT NAME OHMRSC
FIELD ID 085

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11100 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621652
DATA FILE >G6251
CLIENT NAME OHMRSC
FIELD ID 086

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11300 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621653
DATA FILE >G6252
CLIENT NAME OHMRSC
FIELD ID 087

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11800 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621654
DATA FILE >G6253
CLIENT NAME OHMRSC
FIELD ID 088

MATRIX Oil
DILUTION FACTOR 1
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	1670 E	.500

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621655
DATA FILE >G6254
CLIENT NAME OHMRSC
FIELD ID 089

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	10800 E	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
 SAMPLE NUMBER 9621656
 DATA FILE >G6255
 CLIENT NAME OHMRSC
 FIELD ID 090

MATRIX oil
 DILUTION FACTOR 10
 DATE EXTRACTED 11/15/96
 DATE ANALYZED 11/17/96
 ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	11500 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621657
DATA FILE >G6256
CLIENT NAME OHMRSC
FIELD ID 091

MATRIX oil
DILUTION FACTOR 1
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	1800 E	.500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621658
DATA FILE >G6257
CLIENT NAME OHMRSC
FIELD ID 092

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	9530 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
 SAMPLE NUMBER 9621659
 DATA FILE >G6258
 CLIENT NAME OHMRSC
 FIELD ID 094

MATRIX oil
 DILUTION FACTOR 10
 DATE EXTRACTED 11/15/96
 DATE ANALYZED 11/17/96
 ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	13000 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621660
DATA FILE >G6259
CLIENT NAME OHMRSC
FIELD ID 099

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	13.4	5.00

B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621661
DATA FILE >G6260
CLIENT NAME OHMRSC
FIELD ID 108

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	469	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621662
DATA FILE >G6261
CLIENT NAME OHMRSC
FIELD ID 111

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/15/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	96.4	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621663
DATA FILE >A8613
CLIENT NAME OHMRSC
FIELD ID 121

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.625
11104282	Aroclor-1221	U	.625
11141165	Aroclor-1232	U	.625
53469219	Aroclor-1242	U	.625
12672296	Aroclor-1248	U	.625
11097691	Aroclor-1254	U	.625
11096825	Aroclor-1260	46.2	.625

Percent Solid of 80.0 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621664
DATA FILE >AB614
CLIENT NAME OHMRSC
FIELD ID 132

MATRIX OIL
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	1990 E	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621665
DATA FILE >A8615
CLIENT NAME OHMRSC
FIELD ID 133

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	278	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621666
DATA FILE >A8616
CLIENT NAME OHMRSC
FIELD ID 135

MATRIX OIL
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	5890 E	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
 SAMPLE NUMBER 9621667
 DATA FILE >A8617
 CLIENT NAME OHMRSC
 FIELD ID 137

MATRIX Oil
 DILUTION FACTOR 10
 DATE EXTRACTED 11/16/96
 DATE ANALYZED 11/16/96
 ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	108	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	<u>1861</u>	MATRIX	<u>oil</u>
SAMPLE NUMBER	<u>9621668</u>	DILUTION FACTOR	<u>1</u>
DATA FILE	<u>>A8618</u>	DATE EXTRACTED	<u>11/16/96</u>
CLIENT NAME	<u>OHMRSC</u>	DATE ANALYZED	<u>11/16/96</u>
FIELD ID	<u>143</u>	ANALYZED BY	<u>MARK</u>

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	U	.500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621669
DATA FILE >A8619
CLIENT NAME OHMRSC
FIELD ID 151

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/16/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.521
11104282	Aroclor-1221	U	.521
11141165	Aroclor-1232	U	.521
53469219	Aroclor-1242	U	.521
12672296	Aroclor-1248	U	.521
11097691	Aroclor-1254	U	.521
11096825	Aroclor-1260	15.1	.521

Percent Solid of 95.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621670
DATA FILE >A8620
CLIENT NAME OHMRSC
FIELD ID 153

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.557
11104282	Aroclor-1221	U	.557
11141165	Aroclor-1232	U	.557
53469219	Aroclor-1242	U	.557
12672296	Aroclor-1248	U	.557
11097691	Aroclor-1254	U	.557
11096825	Aroclor-1260	26.4	.557

Percent Solid of 89.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621671
DATA FILE >A8621
CLIENT NAME OHMRSC
FIELD ID 164

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.530
11104282	Aroclor-1221	U	.530
11141165	Aroclor-1232	U	.530
53469219	Aroclor-1242	U	.530
12672296	Aroclor-1248	U	.530
11097691	Aroclor-1254	U	.530
11096825	Aroclor-1260	13.7	.530

Percent Solid of 94.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621672
DATA FILE >A8622
CLIENT NAME OHMRSC
FIELD ID 054

MATRIX oil
DILUTION FACTOR 1
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	2030 E	.500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621673
DATA FILE >A8623
CLIENT NAME OHMRSC
FIELD ID 129

MATRIX Oil
DILUTION FACTOR 1
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	9.88	.500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621674
DATA FILE >A8624
CLIENT NAME OHMRSC
FIELD ID 138

MATRIX oil
DILUTION FACTOR 1
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	6.60	.500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621675
DATA FILE >A8625
CLIENT NAME OHMRSC
FIELD ID 163

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	27.8	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621676
DATA FILE >A8626
CLIENT NAME OHMRSC
FIELD ID 165

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	20.3	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621677
DATA FILE >A8627
CLIENT NAME OHMRSC
FIELD ID 171

MATRIX oil
DILUTION FACTOR 1
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.500
11104282	Aroclor-1221	U	.500
11141165	Aroclor-1232	U	.500
53469219	Aroclor-1242	U	.500
12672296	Aroclor-1248	U	.500
11097691	Aroclor-1254	U	.500
11096825	Aroclor-1260	5.51	.500

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
 SAMPLE NUMBER 9621678
 DATA FILE >A8628
 CLIENT NAME OHMRSC
 FIELD ID 126

MATRIX Sludge
 DILUTION FACTOR 300
 DATE EXTRACTED 11/16/96
 DATE ANALYZED 11/17/96
 ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	8.74
11104282	Aroclor-1221	U	8.74
11141165	Aroclor-1232	U	8.74
53469219	Aroclor-1242	U	8.74
12672296	Aroclor-1248	U	8.74
11097691	Aroclor-1254	U	8.74
11096825	Aroclor-1260	57.0	8.74

Percent Solid of 57.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621679
DATA FILE >A8629
CLIENT NAME OHMRSC
FIELD ID 127

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	9.92
11104282	Aroclor-1221	U	9.92
11141165	Aroclor-1232	U	9.92
53469219	Aroclor-1242	U	9.92
12672296	Aroclor-1248	U	9.92
11097691	Aroclor-1254	U	9.92
11096825	Aroclor-1260	172	9.92

Percent Solid of 50.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621680
DATA FILE >A8630
CLIENT NAME OHMRSC
FIELD ID 142

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.518
11104282	Aroclor-1221	U	.518
11141165	Aroclor-1232	U	.518
53469219	Aroclor-1242	U	.518
12672296	Aroclor-1248	U	.518
11097691	Aroclor-1254	U	.518
11096825	Aroclor-1260	7.87	.518

Percent Solid of 96.6 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621681
DATA FILE >A8631
CLIENT NAME OHMRSC
FIELD ID 145

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.521
11104282	Aroclor-1221	U	.521
11141165	Aroclor-1232	U	.521
53469219	Aroclor-1242	U	.521
12672296	Aroclor-1248	U	.521
11097691	Aroclor-1254	U	.521
11096825	Aroclor-1260	16.6	.521

Percent Solid of 95.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621682
DATA FILE >A8632
CLIENT NAME OHMRSC
FIELD ID 148

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.512
11104282	Aroclor-1221	U	.512
11141165	Aroclor-1232	U	.512
53469219	Aroclor-1242	U	.512
12672296	Aroclor-1248	U	.512
11097691	Aroclor-1254	U	.512
11096825	Aroclor-1260	11.6	.512

Percent Solid of 97.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621683
DATA FILE >A8642
CLIENT NAME OHMRSC
FIELD ID 156

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.524
11104282	Aroclor-1221	U	.524
11141165	Aroclor-1232	U	.524
53469219	Aroclor-1242	U	.524
12672296	Aroclor-1248	U	.524
11097691	Aroclor-1254	U	.524
11096825	Aroclor-1260	U	.524

Percent Solid of 95.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621684
DATA FILE >A8643
CLIENT NAME OHMRSC
FIELD ID 157

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.585
11104282	Aroclor-1221	U	.585
11141165	Aroclor-1232	U	.585
53469219	Aroclor-1242	U	.585
12672296	Aroclor-1248	U	.585
11097691	Aroclor-1254	U	.585
11096825	Aroclor-1260	U	.585

Percent Solid of 85.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621685
DATA FILE >A8644
CLIENT NAME OHMRSC
FIELD ID 158

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.552
11104282	Aroclor-1221	U	.552
11141165	Aroclor-1232	U	.552
53469219	Aroclor-1242	U	.552
12672296	Aroclor-1248	U	.552
11097691	Aroclor-1254	U	.552
11096825	Aroclor-1260	13.8	.552

Percent Solid of 90.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621686
DATA FILE >A8645
CLIENT NAME OHMRSC
FIELD ID 159

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.559
11104282	Aroclor-1221	U	.559
11141165	Aroclor-1232	U	.559
53469219	Aroclor-1242	U	.559
12672296	Aroclor-1248	U	.559
11097691	Aroclor-1254	U	.559
11096825	Aroclor-1260	13.2	.559

Percent Solid of 89.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621687
DATA FILE >A8646
CLIENT NAME OHMRSC
FIELD ID 160

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	6.11
11104282	Aroclor-1221	U	6.11
11141165	Aroclor-1232	U	6.11
53469219	Aroclor-1242	U	6.11
12672296	Aroclor-1248	U	6.11
11097691	Aroclor-1254	U	6.11
11096825	Aroclor-1260	U	6.11

Percent Solid of 81.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621688
DATA FILE >A8647
CLIENT NAME OHMRSC
FIELD ID 168

MATRIX Solid
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	.504
11104282	Aroclor-1221	U	.504
11141165	Aroclor-1232	U	.504
53469219	Aroclor-1242	U	.504
12672296	Aroclor-1248	U	.504
11097691	Aroclor-1254	U	.504
11096825	Aroclor-1260	U	.504

Percent Solid of 33.1 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621689
DATA FILE >A8648
CLIENT NAME OHMRSC
FIELD ID 170

MATRIX Sludge
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.283
11104282	Aroclor-1221	U	.283
11141165	Aroclor-1232	U	.283
53469219	Aroclor-1242	U	.283
12672296	Aroclor-1248	U	.283
11097691	Aroclor-1254	U	.283
11096825	Aroclor-1260	3.96	.283

Percent Solid of 58.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621690
DATA FILE >A8649
CLIENT NAME OHMRSC
FIELD ID 004

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	1.38
11104282	Aroclor-1221	U	1.38
11141165	Aroclor-1232	U	1.38
53469219	Aroclor-1242	U	1.38
12672296	Aroclor-1248	U	1.38
11097691	Aroclor-1254	U	1.38
11096825	Aroclor-1260	71.1	1.38

Percent Solid of 36.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621691
DATA FILE >A8650
CLIENT NAME OHMRSC
FIELD ID 006

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/17/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	7.56
11104282	Aroclor-1221	U	7.56
11141165	Aroclor-1232	U	7.56
53469219	Aroclor-1242	U	7.56
12672296	Aroclor-1248	U	7.56
11097691	Aroclor-1254	U	7.56
11096825	Aroclor-1260	116	7.56

Percent Solid of 66.1 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621692
DATA FILE >A8651
CLIENT NAME OHMRSC
FIELD ID 013

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	HDL
12674112	Aroclor-1016	U	7.39
11104282	Aroclor-1221	U	7.39
11141165	Aroclor-1232	U	7.39
53469219	Aroclor-1242	U	7.39
12672296	Aroclor-1248	U	7.39
11097691	Aroclor-1254	U	7.39
11096825	Aroclor-1260	964	7.39

Percent Solid of 67.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below HDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621693
DATA FILE >A8652
CLIENT NAME OHMRSC
FIELD ID 014

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	7.66
11104282	Aroclor-1221	U	7.66
11141165	Aroclor-1232	U	7.66
53469219	Aroclor-1242	U	7.66
12672296	Aroclor-1248	U	7.66
11097691	Aroclor-1254	U	7.66
11096825	Aroclor-1260	642	7.66

Percent Solid of 65.3 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621694
DATA FILE >A8653
CLIENT NAME OHMRSC
FIELD ID 063

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.92
11104282	Aroclor-1221	U	5.92
11141165	Aroclor-1232	U	5.92
53469219	Aroclor-1242	U	5.92
12672296	Aroclor-1248	U	5.92
11097691	Aroclor-1254	U	5.92
11096825	Aroclor-1260	7.90	5.92

Percent Solid of 84.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621695
DATA FILE >A8654
CLIENT NAME OHMRSC
FIELD ID 112

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	7.75
11104282	Aroclor-1221	U	7.75
11141165	Aroclor-1232	U	7.75
53469219	Aroclor-1242	U	7.75
12672296	Aroclor-1248	U	7.75
11097691	Aroclor-1254	U	7.75
11096825	Aroclor-1260	161	7.75

Percent Solid of 64.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621696
DATA FILE >A8655
CLIENT NAME OHMRSC
FIELD ID 116

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	7.39
11104282	Aroclor-1221	U	7.39
11141165	Aroclor-1232	U	7.39
53469219	Aroclor-1242	U	7.39
12672296	Aroclor-1248	U	7.39
11097691	Aroclor-1254	U	7.39
11096825	Aroclor-1260	127	7.39

Percent Solid of 67.7 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621697
DATA FILE >A8656
CLIENT NAME OHMRSC
FIELD ID 076

MATRIX Solid
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.170
11104282	Aroclor-1221	U	.170
11141165	Aroclor-1232	U	.170
53469219	Aroclor-1242	U	.170
12672296	Aroclor-1248	U	.170
11097691	Aroclor-1254	U	.170
11096825	Aroclor-1260	.138 J	.170

Percent Solid of 97.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621698
DATA FILE >A8657
CLIENT NAME OHMRSC
FIELD ID 077

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	12800 E	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621699
DATA FILE >A8658
CLIENT NAME OHMRSC
FIELD ID 100

MATRIX Solid
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.395
11104282	Aroclor-1221	U	.395
11141165	Aroclor-1232	U	.395
53469219	Aroclor-1242	U	.395
12672296	Aroclor-1248	U	.395
11097691	Aroclor-1254	U	.395
11096825	Aroclor-1260	U	.395

Percent Solid of 42.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621700
DATA FILE >A8659
CLIENT NAME OHMRSC
FIELD ID 101

MATRIX oil
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	26.4	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621701
DATA FILE >A8660
CLIENT NAME OHMRSC
FIELD ID 102

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.600
11104282	Aroclor-1221	U	.600
11141165	Aroclor-1232	U	.600
53469219	Aroclor-1242	U	.600
12672296	Aroclor-1248	U	.600
11097691	Aroclor-1254	U	.600
11096825	Aroclor-1260	30.3	.600

Percent Solid of 83.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621702
DATA FILE >A8661
CLIENT NAME OHMRSC
FIELD ID 114

MATRIX Sludge
DILUTION FACTOR 30
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.531
11104282	Aroclor-1221	U	.531
11141165	Aroclor-1232	U	.531
53469219	Aroclor-1242	U	.531
12672296	Aroclor-1248	U	.531
11097691	Aroclor-1254	U	.531
11096825	Aroclor-1260	23.1	.531

Percent Solid of 94.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621703
DATA FILE >G6283
CLIENT NAME OHMRSC
FIELD ID 115

MATRIX Sludge
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	.370
11104282	Aroclor-1221	U	.370
11141165	Aroclor-1232	U	.370
53469219	Aroclor-1242	U	.370
12672296	Aroclor-1248	U	.370
11097691	Aroclor-1254	U	.370
11096825	Aroclor-1260	U	.370

Percent Solid of 45.1 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621704
DATA FILE >G6284
CLIENT NAME OHMRSC
FIELD ID 117

MATRIX Sludge
DILUTION FACTOR 300
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.73
11104282	Aroclor-1221	U	5.73
11141165	Aroclor-1232	U	5.73
53469219	Aroclor-1242	U	5.73
12672296	Aroclor-1248	U	5.73
11097691	Aroclor-1254	U	5.73
11096825	Aroclor-1260	11.7	5.73

Percent Solid of 87.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621705
DATA FILE >G6285
CLIENT NAME OHMRSC
FIELD ID 118

MATRIX Sludge
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	1.75
11104282	Aroclor-1221	U	1.75
11141165	Aroclor-1232	U	1.75
53469219	Aroclor-1242	U	1.75
12672296	Aroclor-1248	U	1.75
11097691	Aroclor-1254	U	1.75
11096825	Aroclor-1260	15.4	1.75

Percent Solid of 9.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	1861	MATRIX	oil
SAMPLE NUMBER	9621706	DILUTION FACTOR	10
DATA FILE	>G6286	DATE EXTRACTED	11/16/96
CLIENT NAME	OHMRSC	DATE ANALYZED	11/18/96
FIELD ID	124	ANALYZED BY	MARK

CAS#	COMPOUND	HG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	312	5.00

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 1861
SAMPLE NUMBER 9621707
DATA FILE >G6287
CLIENT NAME OHMRSC
FIELD ID 003

MATRIX Oil
DILUTION FACTOR 10
DATE EXTRACTED 11/16/96
DATE ANALYZED 11/18/96
ANALYZED BY MARK

CAS#	COMPOUND	MG/KG	MDL
12674112	Aroclor-1016	U	5.00
11104282	Aroclor-1221	U	5.00
11141165	Aroclor-1232	U	5.00
53469219	Aroclor-1242	U	5.00
12672296	Aroclor-1248	U	5.00
11097691	Aroclor-1254	U	5.00
11096825	Aroclor-1260	U	5.00

- B - Indicates compound found in associated blank.
J - Indicates compound concentration found below MDL.
U - Indicates compound analyzed for but not detected.
E - Indicates result exceeds highest calibration standard.
D - Indicates result is based on a dilution.

REFERENCE NO. 20



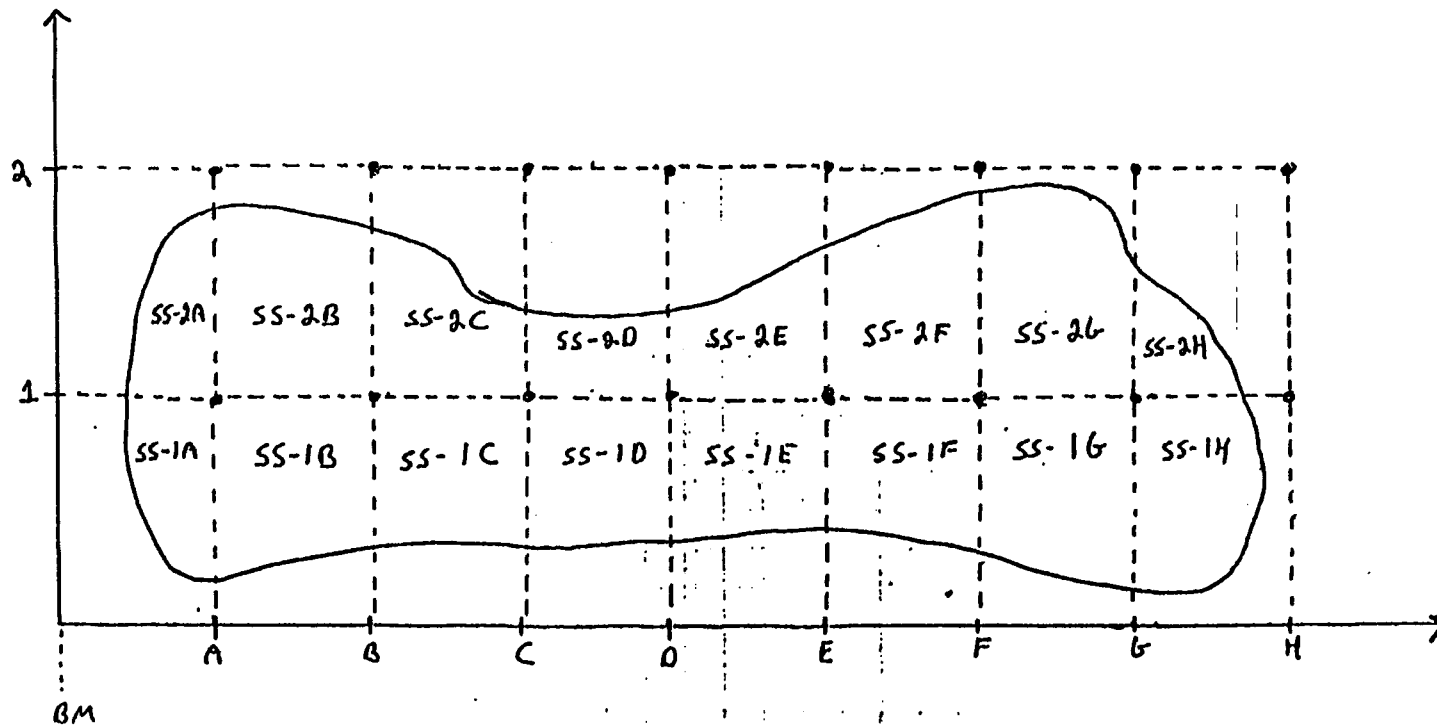
COMPUTATION SHEET

Form No. 0048
Midwest Tech. Servs.
Rev. 08/89

OHM Corporation

Proj. No.	Client	Location	Subject		Page <u> </u> of <u> </u>	
			Preparer's Initials	Date	Reviewer's Initials	Date

21



* Drawing is not to scale
** All samples were taken within the excavation at a depth
of $\approx 1\text{ ft}$



OHM Remediation
Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 3

Form 0019

Field Technical Services

Rev. 08/89

170299

O.H. MATERIALS CORP.		P.O. BOX 551		FINDLAY, OH 45830-0551		419-423-3520															
PROJECT NAME Nuclear Motors		PROJECT LOCATION Mantua, NJ				NUMBER OF CONTAINERS 1602	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) PCB's														
PROJECT NO. 15423		PROJECT CONTACT George P. Stoltz		PROJECT TELEPHONE NO. 609-478-4984																	
CLIENT'S REPRESENTATIVE USER		PROJECT MANAGER/SUPERVISOR Tom O'Hara/Todd King																			
ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	REMARKS														
1	SS-1A	11/5/96	0810	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
2	SS-2A	11/5/96	0815	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
3	SS-3A	11/5/96	0825	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
4	SS-4A	11/5/96	0840	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
5	SS-5A	11/5/96	0855	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
6	SS-6A	11/5/96	0910	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
7	SS-7A	11/5/96	0925	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
8	SS-8A	11/5/96	0940	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
9	SS-9A	11/5/96	0950	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
10	SS-10A	11/5/96	1005	X		Surface Soil Sample Taken From the bottom of the excavation	1602	X									5-Part Composite Sample				
TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY		TRANSFERS ACCEPTED BY		DATE	TIME	REMARKS													
1	1-10	K. P. Stoltz		Keith Roberts		11/5/96	1140	724-2141													
2							1155														
3																					
4								SAMPLER'S SIGNATURE K. P. Stoltz Emp # 77924													



CHAIN-OF



CHAIN-OF-CUSTODY RECORD

LAB COPY
Form 0019
Field Technical Services
Rev. 05/98

170299

O.H. MATERIALS CORP. • P.O. BOX 661 • FINDLAY, OH 45830-0661

PROJECT NAME: Yurgin Motors
PROJECT LOCATION: Marietta, NJ
PROJECT NUMBER: 19223
PROJECT CONTACT: Kevin P. Stoltz
PROJECT TELEPHONE NO.: 609-478-4984
PROJECT MANAGER/OWNER: Tim O'Hara/Todd King

USEPA-II

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COPIES	DATE	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)
1	SS-1F	11/14/94	1015	X		Surface Soil Sample Taken From the Bottom of the Excavation
2	SS-2F	11/14/94	1025	X		Surface Soil Sample Taken From the Bottom of the Excavation
3	SS-1G	11/14/94	1035	X		Surface Soil Sample Taken From the Bottom of the Excavation
4	SS-2G	11/14/94	1045	X		Surface Soil Sample Taken From the Bottom of the Excavation
5	SS-1H	11/14/94	1050	X		Surface Soil Sample Taken From the Bottom of the Excavation
6	SS-2H	11/14/94	1055	X		Surface Soil Sample Taken From the Bottom of the Excavation
7						
8						
9						
10						

ITEM NUMBER	TRANSFERED BY	TRANSFERRED TO
1-6	Kevin P. Stoltz	Keith Robert
7	Kevin P. Stoltz	
8		
9		
10		

O.H. MATERIALS CORP. • P.O. BOX 661 • FINDLAY, OH 45830-0661 • 418-473-3528

PROJECT NAME: Yurgin Motors
PROJECT LOCATION: Marietta, NJ
PROJECT NUMBER: 19223
PROJECT CONTACT: Kevin P. Stoltz
PROJECT TELEPHONE NO.: 609-478-4984
PROJECT MANAGER/OWNER: Tim O'Hara/Todd King

USEPA-II

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COPIES	DATE	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	ANALYSIS DATE	ANALYSIS BY	ANALYSIS METHOD	
1	SS-1A	11/14/94	0810	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623019	5-Part Composite Sample
2	SS-2A	11/14/94	0815	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623015	5-Part Composite Sample
3	SS-1B	11/14/94	0825	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623016	5-Part Composite Sample
4	SS-2B	11/14/94	0840	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623017	5-Part Composite Sample
5	SS-1C	11/14/94	0850	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623018	5-Part Composite Sample
6	SS-2C	11/14/94	0910	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623019	5-Part Composite Sample
7	SS-1D	11/14/94	0925	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623020	5-Part Composite Sample
8	SS-2D	11/14/94	0940	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623021	5-Part Composite Sample
9	SS-1E	11/14/94	0950	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623022	5-Part Composite Sample
10	SS-2E	11/14/94	1005	X		Surface Soil Sample Taken From the Bottom of the Excavation	11/02/94	X	9623023	5-Part Composite Sample

ITEM NUMBER	TRANSFERED BY	TRANSFERED TO
1-10	Kevin P. Stoltz	Keith Robert
1	Kevin P. Stoltz	Keith Robert
2		
3		
4		

REMARKS: -72L TAT C-7189

ANALYST SIGNATURE: Kevin P. Stoltz

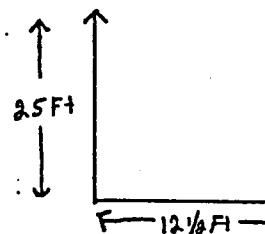
DATE: 11/15/94

TIME: 12:30

LAB COPY: 170299

Page	Subject	Date	Appraiser's Initials	Date	Location	Reviewer's Initials	Date	Client	Proj. No.	Preparer's Initials

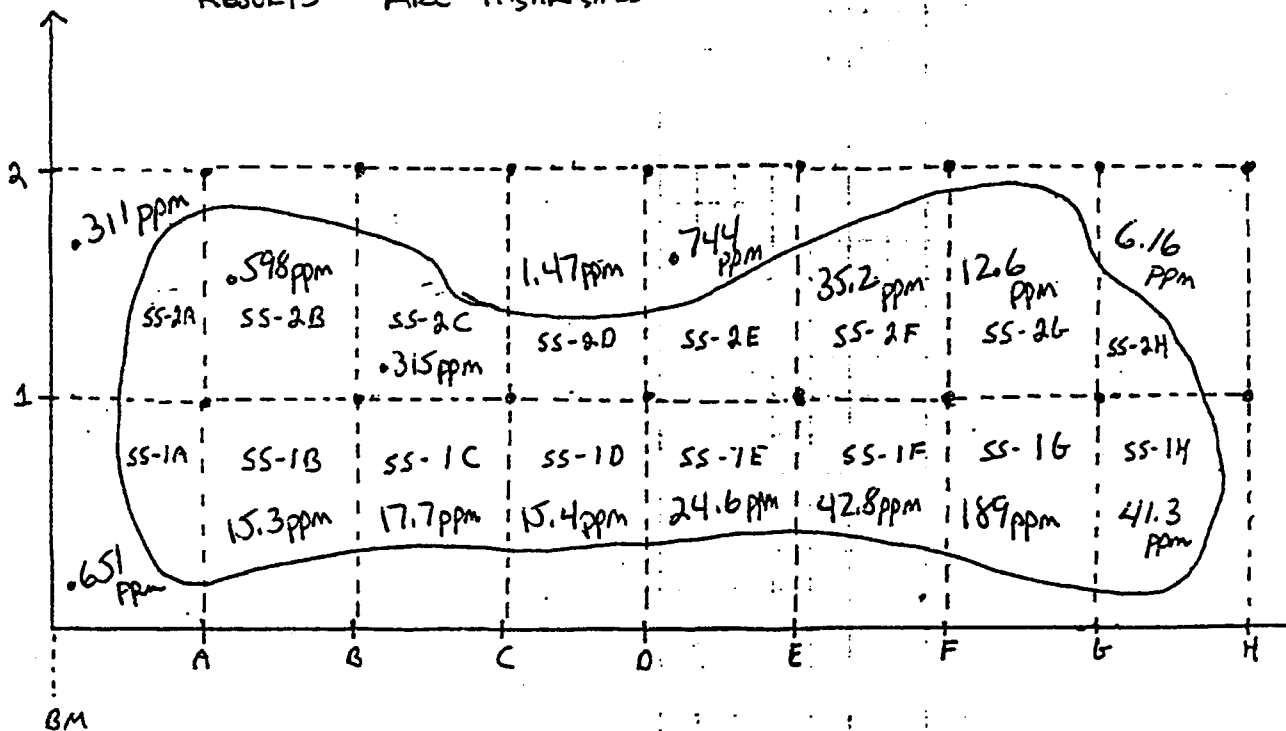
1
2



POST-EXCAVATION ANALYSIS RECEIVED 12/11/96

Length = 100 ft
Width = 50 ft
Total = 5000 sf

RESULTS ARE HIGHLIGHTED



* Drawing is not to scale

** All samples were taken within the excavation at a depth of ≈ 1 Ft

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623014
DATA FILE >G6573
CLIENT NAME OHMRSC
FIELD ID SS-1A

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/03/96
DATE ANALYZED 12/06/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	19.3
11104282	Aroclor-1221	U	19.3
11141165	Aroclor-1232	U	19.3
53469219	Aroclor-1242	U	19.3
12672296	Aroclor-1248	U	19.3
11097691	Aroclor-1254	U	19.3
11096825	Aroclor-1260	651 R	19.3

Percent Solid of 86.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623015
DATA FILE >G6574
CLIENT NAME OHMRSC
FIELD ID SS-2A

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/06/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	18.7
11104282	Aroclor-1221	U	18.7
11141163	Aroclor-1232	U	18.7
53469219	Aroclor-1242	U	18.7
12672296	Aroclor-1248	U	18.7
11097691	Aroclor-1254	U	18.7
11096825	Aroclor-1260	311	18.7

Percent Solid of 88.9 (s used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623016
DATA FILE >G6575
CLIENT NAME OHNRSC
FIELD ID 33-18

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/06/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	19.0
11104282	Aroclor-1221	U	19.0
11141165	Aroclor-1232	U	19.0
53469219	Aroclor-1242	U	19.0
12672296	Aroclor-1248	U	19.0
11097691	Aroclor-1254	U	19.0
11096825	Aroclor-1260	12500 E I	19.0

Percent Solid of 87.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623016DL 10
DATA FILE >G6605
CLIENT NAME QHNRSC
FIELD ID SS-1B

MATRIX Soil
DILUTION FACTOR 10
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/09/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/XG	MDL
12674112	Aroclor-1016	U	190
11104282	Aroclor-1221	U	190
11141163	Aroclor-1232	U	190
53469219	Aroclor-1242	U	190
12672296	Aroclor-1248	U	190
11097691	Aroclor-1254	U	190
11096825	Aroclor-1260	15300 DI	190

Percent Solid of 87.5 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume C6 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2182	MATRIX	Soil
SAMPLE NUMBER	9623017	DILUTION FACTOR	1
DATA FILE	>G6576	DATE EXTRACTED	12/05/96
CLIENT NAME	OH48SC	DATE ANALYZED	12/06/96
FIELD ID	SS-2B	ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MOL
12674112	Aroclor-1016	U	20.2
11104282	Aroclor-1221	U	20.2
11141155	Aroclor-1232	U	20.2
53469219	Aroclor-1242	U	20.2
12672296	Aroclor-1248	U	20.2
11097691	Aroclor-1254	U	20.2
11096825	Aroclor-1260	598 R	20.2

Percent Solid of 82.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MOL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623018
DATA FILE >06577
CLIENT NAME OHNRSC
FIELD ID SS-1C

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/03/96
DATE ANALYZED 12/06/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	18.3
11104282	Aroclor-1221	U	18.3
11141165	Aroclor-1232	U	18.3
53469219	Aroclor-1242	U	18.3
12672296	Aroclor-1248	U	18.3
11097691	Aroclor-1254	U	18.3
11096825	Aroclor-1260	14800 E I	18.3

Percent Solid of 91.0 is used for all target compounds.

- S - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2189
SAMPLE NUMBER	96230180L 10
DATA FILE	>G6606
CLIENT NAME	OHMRSC
FIELD ID	SS-1C

MATRIX	Soil
DILUTION FACTOR	10
DATE EXTRACTED	12/05/96
DATE ANALYZED	12/09/96
ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	183
11104282	Aroclor-1221	U	183
11141165	Aroclor-1232	U	183
53469219	Aroclor-1242	U	183
12672296	Aroclor-1248	U	183
11097691	Aroclor-1254	U	183
11096825	Aroclor-1260	17700 DI	183

Percent Solid of 91.0 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2182
SAMPLE NUMBER 9623019
DATA FILE >G6578
CLIENT NAME OHMRSC
FIELD ID SS-2C

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/06/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	18.7
11104282	Aroclor-1221	U	18.7
11141165	Aroclor-1232	U	18.7
53469219	Aroclor-1242	U	18.7
12672296	Aroclor-1248	U	18.7
11097691	Aroclor-1254	U	18.7
11096825	Aroclor-1260	315	18.7

Percent Solid of 88.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623020
DATA FILE >96579
CLIENT NAME OHMRSC
FIELD ID SS-1D

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/06/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12574112	Aroclor-1016	U	18.4
11104282	Aroclor-1221	U	18.4
11141165	Aroclor-1232	U	18.4
53469219	Aroclor-1242	U	18.4
12672296	Aroclor-1248	U	18.4
11077691	Aroclor-1254	U	18.4
11096825	Aroclor-1260	12700 E I	18.4

Percent Solid of 90.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2109
SAMPLE NUMBER 96230200L 10
DATA FILE 9G6607
CLIENT NAME OHMRSC
FIELD ID SS-1D

MATRIX Soil
DILUTION FACTOR 10
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/09/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	184
11104282	Aroclor-1221	U	184
11141165	Aroclor-1232	U	184
53469219	Aroclor-1242	U	184
12672296	Aroclor-1248	U	184
11097691	Aroclor-1254	U	184
11096825	Aroclor-1260	15400 DI	184

Percent Solid of 90.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2189
SAMPLE NUMBER	9623021
DATA FILE	>G6580
CLIENT NAME	OHMRSC
FIELD ID	SS-20

MATRIX	Soil
DILUTION FACTOR	1
DATE EXTRACTED	12/05/96
DATE ANALYZED	12/07/96
ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	18.5
11104282	Aroclor-1221	U	18.5
11341165	Aroclor-1232	U	18.5
53459219	Aroclor-1242	U	18.5
12672296	Aroclor-1248	U	18.5
11097691	Aroclor-1254	U	18.5
11096825	Aroclor-1260	1470 R	18.5

Percent Solid of 89.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2180
SAMPLE NUMBER	9623022
DATA FILE	>G6581
CLIENT NAME	OHMRSC
FIELD ID	SS-1E

MATRIX	Soil
DILUTION FACTOR	1
DATE EXTRACTED	12/03/96
DATE ANALYZED	12/07/96
ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	18.1
11104282	Aroclor-1221	U	18.1
11141165	Aroclor-1232	U	18.1
53469219	Aroclor-1242	U	18.1
12672296	Aroclor-1248	U	18.1
11097691	Aroclor-1254	U	18.1
11096825	Aroclor-1260	19200 E 1	18.1

Percent Solid of 92.0 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623022DL 20
DATA FILE >G6608
CLIENT NAME OHMRSC
FIELD ID SS-1E

MATRIX Soil
DILUTION FACTOR 20
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/09/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	362
11104282	Aroclor-1221	U	362
11141165	Aroclor-1232	U	362
53469219	Aroclor-1242	U	362
12672296	Aroclor-1248	U	362
11097691	Aroclor-1254	U	362
11096825	Aroclor-1260	24600 D1	362

Percent Solid of 92.0 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623023
DATA FILE >G6582
CLIENT NAME QHMRSC
FIELD ID SS-2E

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/07/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	HDL
12674112	Aroclor-1016	U	18.7
11104282	Aroclor-1221	U	18.7
11141165	Aroclor-1232	U	18.7
53469219	Aroclor-1242	U	18.7
12672296	Aroclor-1248	U	18.7
11097691	Aroclor-1254	U	18.7
11096825	Aroclor-1260	744 R	18.7

Percent Solid of 89.3 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below HDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623024
DATA FILE >G6585
CLIENT NAME OHMRSC
FIELD ID SS-1F

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/07/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1015	U	18.1
11104282	Aroclor-1221	U	18.1
11141165	Aroclor-1232	U	18.1
53469219	Aroclor-1242	U	18.1
12672296	Aroclor-1248	U	18.1
11097691	Aroclor-1254	U	18.1
11096825	Aroclor-1260	29200 F I	18.1

Percent Solid of 92.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 962302401 50
DATA FILE >G6609
CLIENT NAME OHMRSC
FIELD ID SS-1F

MATRIX Soil
DILUTION FACTOR 50
DATE EXTRACTED 12/03/96
DATE ANALYZED 12/09/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	904
11104292	Aroclor-1221	U	904
11141165	Aroclor-1232	U	904
53469219	Aroclor-1242	U	904
12672296	Aroclor-1248	U	904
11097691	Aroclor-1254	U	904
11096825	Aroclor-1260	42800 DI	904

Percent Solid of 92.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2189
SAMPLE NUMBER	9623025
DATA FILE	>G6586
CLIENT NAME	OHMRSC
FIELD ID	SS-2F

MATRIX	Soil
DILUTION FACTOR	1
DATE EXTRACTED	12/05/96
DATE ANALYZED	12/07/96
ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	19.4
11104282	Aroclor-1221	U	19.4
11141165	Aroclor-1232	U	19.4
53469219	Aroclor-1242	U	19.4
12672296	Aroclor-1248	U	19.4
11097691	Aroclor-1254	U	19.4
11096825	Aroclor-1260	25500 E 1	19.4

Percent Solid of 85.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

CASE NUMBER
SAMPLE NUMBER
DATA FILE
CLIENT NAME
FIELD NO

3100
04212214 30
04612
CH2C1C
11-72

ANALYST
DILUTION FACTOR
DATE EXTRACTED
DATE ANALYZED
ANALYZED BY

Soil
10
12/25/94
12/29/94
CL122

CASE	COMPOUND	UG/GB	NOL
12674112	Aroclor-1216	U	970
11104282	Aroclor-1221	U	970
11141163	Aroclor-1223	U	970
53469219	Aroclor-1242	U	970
12672296	Aroclor-1248	U	970
11097691	Aroclor-1254	U	970
11096825	Aroclor-1260	35200 01	970

Percent Solid of 85.9 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below NOL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER
SAMPLE NUMBER
DATA FILE
CLIENT NAME
FIELD NO

2100
04212216
126137
CH2C1C
11-16

ANALYST
DILUTION FACTOR
DATE EXTRACTED
DATE ANALYZED
ANALYZED BY

Soil
1
12/25/94
12/29/94
CL122

CASE	COMPOUND	UG/GB	NOL
12674112	Aroclor-1216	U	16.3
11104282	Aroclor-1221	U	16.3
11141163	Aroclor-1223	U	16.3
53469219	Aroclor-1242	U	16.3
12672296	Aroclor-1248	U	16.3
11097691	Aroclor-1254	U	16.3
11096825	Aroclor-1260	48700 1 1	16.3

Percent Solid of 80.3 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below NOL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2189
SAMPLE NUMBER	96230260L 100
DATA FILE	>06611
CLIENT NAME	OHMRSC
FIELD ID	SS-1G

MATRIX	Soil
DILUTION FACTOR	100
DATE EXTRACTED	12/05/96
DATE ANALYZED	12/09/96
ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	1850
11104282	Aroclor-1221	U	1850
11141165	Aroclor-1232	U	1850
53469219	Aroclor-1242	U	1850
12672296	Aroclor-1248	U	1850
11097691	Aroclor-1254	U	1850
11096825	Aroclor-1260	189000 DI	1850

Percent Solid of 90.2 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623027
DATA FILE >66588
CLIENT NAME OHMRSC
FIELD ID SS-26

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/07/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	19.4
11104282	Aroclor-1221	U	19.4
11141165	Aroclor-1232	U	19.4
53469219	Aroclor-1242	U	19.4
12672296	Aroclor-1248	U	19.4
11097691	Aroclor-1254	U	19.4
11096825	Aroclor-1260	9270 E I	19.4

Percent Solid of 85.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2189	MATRIX	Soil
SAMPLE NUMBER	96230270L 10	DILUTION FACTOR	10
DATA FILE	266612	DATE EXTRACTED	12/03/96
CLIENT NAME	CHMRSC	DATE ANALYZED	12/09/96
FIELD ID	SS-20	ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	194
11104282	Aroclor-1221	U	194
11141163	Aroclor-1232	U	194
53469219	Aroclor-1242	U	194
12672296	Aroclor-1248	U	194
11077691	Aroclor-1254	U	194
11096825	Aroclor-1260	12600 DI	194

Percent Solid of 85.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

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ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2182
SAMPLE NUMBER 962302B
DATA FILE >G6589
CLIENT NAME CHMRSC
FIELD ID SS-1H

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/07/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	22.4
11104282	Aroclor-1221	U	22.4
11141165	Aroclor-1232	U	22.4
53469219	Aroclor-1242	U	22.4
12672296	Aroclor-1248	U	22.4
11097691	Aroclor-1254	U	22.4
11096825	Aroclor-1260	29300 E I	22.4

Percent Solid of 74.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC
PCB ORGANIC ANALYSIS DATA

CASE NUMBER	2189	MATRIX	Soil
SAMPLE NUMBER	96230280L 50	DILUTION FACTOR	50
DATA FILE	>66613	DATE EXTRACTED	12/05/96
CLIENT NAME	OHMRSC	DATE ANALYZED	12/09/96
FIELD ID	SS-1H	ANALYZED BY	CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	1120
11104282	Aroclor-1221	U	1120
11141165	Aroclor-1232	U	1120
53469219	Aroclor-1242	U	1120
12672296	Aroclor-1248	U	1120
11097691	Aroclor-1254	U	1120
11096825	Aroclor-1260	41300 DI	1120

Percent Solid of 74.4 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site Remediation News Volume 06 Number 1.

ACCREDITED LABORATORIES, INC.
PCB ORGANIC ANALYSIS DATA

CASE NUMBER 2189
SAMPLE NUMBER 9623029
DATA FILE >G6590
CLIENT NAME OHMRSC
FIELD ID SS-2H

MATRIX Soil
DILUTION FACTOR 1
DATE EXTRACTED 12/05/96
DATE ANALYZED 12/07/96
ANALYZED BY CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	20.9
11104282	Aroclor-1221	U	20.9
11141165	Aroclor-1232	U	20.9
53469219	Aroclor-1242	U	20.9
12672296	Aroclor-1248	U	20.9
11097691	Aroclor-1254	U	20.9
11096825	Aroclor-1260	5060 E 1	20.9

Percent Solid of 79.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

* Flags are based on New Jersey Soil Cleanup from Site
Remediation News Volume 06 Number 1.

CASE NUMBER
SAMPLE NUMBER
DATA FILE
CLIENT NAME
FIELD ID

2189
962302901 5
>06614
OHMRSC
SS-2H

MATRIX
DILUTION FACTOR
DATE EXTRACTED
DATE ANALYZED
ANALYZED BY

Soil
5
12/05/96
12/09/96
CLIFF

CAS#	COMPOUND	UG/KG	MDL
12674112	Aroclor-1016	U	104
11104282	Aroclor-1221	U	104
11141165	Aroclor-1232	U	104
53469219	Aroclor-1242	U	104
12672296	Aroclor-1248	U	104
11097691	Aroclor-1254	U	104
11096825	Aroclor-1260	6160 DI	104

Percent Solid of 79.8 is used for all target compounds.

- B - Indicates compound found in associated blank.
- J - Indicates compound concentration found below MDL.
- U - Indicates compound analyzed for but not detected.
- E - Indicates result exceeds highest calibration standard.
- D - Indicates result is based on a dilution.
- R - Result exceeds residential surface soil standards.*
- I - Result exceeds industrial surface soil standards.*

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REFERENCE NO. 21

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM			TELECON NOTE
CONTROL NO: 02-96-08-0002	DATE: 7/21/97	TIME: 1400	
DISTRIBUTION: Yurgin Motors TDD File			
BETWEEN: Shirley Veacock	OF Mantua Township	PHONE (609) 468-1500	
AND Dennis Foerter	OF Region II START		
DISCUSSION Ms. Veacock is the Town Clerk for the Township of Mantua. She informed START that Township records indicate that the Yurgin Motors Property (Lot 24, Block 273) is zoned for Planned Commercial (PC) use <i>and</i> for agricultural/residential (AR) use. <div style="text-align: right;">Signature/Date <u>Dennis Foerter 7/21/97</u></div>			
Action Items:			